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19th, 20th, 21st and 22nd
ANNUAL REPORTS

OF THE



State Inspector of
Coal Mines

1931 to 1934 Inclusive



1935



THE BRADFORD-ROBINSON PTG. CO., DENVER

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ANNUAL REPORTS

OF THE

State Inspector of
Coal Mines - *Mike Long*

1931 to 1934 Inclusive



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THE BRADFORD-ROBINSON PTG. CO., DENVER

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TABLE OF CONTENTS

	Page
MEMORIAM: James Dalrymple.....	3
LETTER OF TRANSMITTAL.....	4
PERSONNEL: Coal Mine Inspection Department.....	5
FINANCIAL STATEMENT: 1931-1934.....	6
INTRODUCTION	7
SUMMARY OF WORK DONE BY FIELD FORCE: 1931-1934.....	8
APPOINTMENT: Thomas Allen.....	8
DIRECTORY: Companies, Mines and Officials.....	Insert
TABLE A—BY COMPANIES: Production, Men Employed, Fatal and Non-Fatal Accidents	
1931-1932	10
1933-1934	22
TABLE B—NON-FATAL ACCIDENTS: 1931-1934.....	34
TABLE C—FATAL ACCIDENTS BY CAUSE: 1931-1934.....	35
TABLE D—BY COUNTIES: Mine, Company, Mine P. O., Char. of Coal, Days Worked, Average Men Employed, Production and Capacity of Mine.	
1931	36
1932	50
1933	65
1934	81
PRODUCTION BY COUNTIES BY MONTHS: 1931.....	97
1932	98
1933	99
1934.	100
PRODUCTION, COMPARATIVE BY COUNTIES: 1931-1934.....	101
PRODUCTION, ANNUAL 1873-1934.....	101
FATAL ACCIDENTS: Resume of 1931.....	102
1932	110
1933	121
1934	130
FATAL ACCIDENT AT LITTLETON VALLEY MINE: Report of James Dalrymple.....	129
SUMMARY: Coal Production 1931-1932.....	138
Coal Production 1933-1934.....	139

JAMES DALRYMPLE
(Died October 10, 1934)

On October 10, 1934, Mr. James Dalrymple, State Inspector of Coal Mines, was returning from a trip of inspection. He stopped at Florence, Colorado, and as he stepped off from the curbing to cross the street he was struck by an automobile which came from around a corner, injuring him so severely that he died almost instantly.

The death of Mr. Dalrymple is a severe loss to the coal mining industry. He was an able and efficient official, under whose administration conditions in the coal mines were vastly improved. He was appointed Deputy Inspector in the fall of 1909 and later, in the spring of 1910, he was made Chief Inspector. He had a thorough knowledge of coal mining and as an inspector gained a national reputation. He was fearless, both in cases of disaster or when it came to the safeguarding of those engaged in the coal mining industry. He was always open to conviction and readily invited discussions pertaining to the safety in coal mines. One of the first acts after he assumed charge of the coal mine inspection department was, with the cooperation of the coal mine owners, to draft a new set of laws to meet the requirements for a more effective safeguarding of life and property. The results more than repaid the effort. In 1913 the present coal mining laws were enacted. This resulted in better underground working conditions, reduction of fatal and non-fatal accidents.

When Mr. Dalrymple was appointed Chief Inspector the death rate in our coal mines was ten per thousand employed. Through his untiring efforts this was reduced to two and two-tenths per thousand employed in 1933. His heart and soul was in his work. His energy never fagged in his efforts to carry out the provisions of the coal mining laws. He was honest and straightforward, of great moral and physical courage and was at all times fair to both labor and employer. He performed his duties sincerely and efficiently, always alert to the work he had in hand.

It seems a strange twist of fate that he who had gone through so many serious mine explosions and mine fires, jeopardizing his life to rescue trapped men or bring to the surface the dead and mangled, should be killed in the open street.

It was my privilege to work under Mr. Dalrymple for nearly twenty-five years. His death is a personal loss as he was always considerate and kind to me and treated me more as a friend than a mere employe. I was at his side in the many and constant efforts made by him to keep the department on the highest level of efficiency and as the coal industry went down with the depression and he was not able to maintain the high standard he built up, he grieved deeply. He was a man of fine character, an able official and a sincere friend; very charitable and generous to those who appealed to him, and there were many who came to him.

In kindly remembrance these lines are dedicated.

ADA R. TIBBITS,
Chief Clerk, State Inspector of Coal Mines.

LETTER OF TRANSMITTAL

Denver, Colorado, December 31, 1935.

To His Excellency,
ED C. JOHNSON,
Governor of Colorado.

Sir: Herewith I have the honor to submit to you, in accordance with Section 3475 of the Compiled Laws of Colorado of an Act entitled "Coal Mining Laws," the nineteenth, twentieth, twenty-first and twenty-second Annual Report of this department.

The period covered being the calendar years 1931, 1932, 1933 and 1934.

Respectfully,
THOMAS ALLEN,
State Inspector of Coal Mines.

PERSONNEL OF THE COAL MINE INSPECTION
DEPARTMENT

JAMES DALRYMPLE, Chief Inspector.....Denver, Colo.
ADA R. TIBBITS, Chief Clerk.....Denver, Colo.
MAX M. GREENWALD, Assistant Clerk.....Denver, Colo.

FIELD FORCE AND DISTRICTS

W. M. LAURIE, 512 Ash St., Trinidad, Colo.....District No. 1
All the mines in Las Animas County excepting the Star,
Torrid and Vickers mines, which are in District No. 2.

GEORGE C. DALRYMPLE, Box 645, Walsenburg, Colo.....District No. 2
All mines in Huerfano and Fremont Counties and the
three mines listed in District No. 1.

JAS. W. GRAHAM, Lafayette, Colo.....District No. 3
All mines in Boulder, Moffat and Routt Counties.

HUGO H. MACHIN, 2447 5th St., Boulder, Colo.....District No. 4
All mines in Elbert, El Paso, Jackson, Jefferson, Larimer
and Weld Counties.

FINLAY McCALLUM, 348 White Ave., Grand Junction,
ColoradoDistrict No. 5
All mines in Archuleta, Delta, Garfield, Gunnison, La
Plata, Mesa, Montezuma, Montrose, Ouray, Pitkin, Rio
Blanco and San Miguel Counties.

FINANCIAL STATEMENT SHOWING RECEIPTS AND DISBURSEMENTS ANNUALLY, 1931-1934

RECEIPTS	1931	1932	1933	1934
Tax collected on coal mined.....	\$28,602.55	\$23,159.21	\$21,994.00	\$20,022.08
From sales of copies of coal mining laws.....	89.25	48.75	43.65	76.75
Refunds .....	.....	107.39	178.82	19.17
Balance brought forward from 1930.....	11,241.43	6,497.73	2,923.93	1,585.10
TOTAL	\$39,933.23	\$29,813.08	\$25,140.40	\$21,703.10
DISBURSEMENTS				
Salaries for entire department.....	\$24,550.00	\$21,243.03	\$19,966.69	\$15,114.18
Fatal accident investigators, per diem and exp.....	.....	28.40	27.70	.....
Railroad transportation	195.30	199.15	223.27	199.74
Automobile mileage	4,317.22	2,934.04	1,841.38	1,902.80
Board of Examiners.....	.....	.....	.....	268.54
Printing	799.08	95.00	148.53	154.79
Stationery and office supplies.....	275.20	210.85	163.71	183.89
Postage	522.67	667.34	367.33	322.44
Telephone toll calls, entire department.....	100.30	57.78	33.65	44.23
Telegraph service	11.54	20.98	18.30	10.85
Instruments	40.92	16.00	22.32	21.58
Hotel	834.00	434.75	336.15	343.75
Meals	1,388.30	678.65	305.22	368.25
Miscellaneous	400.97	302.18	101.05	167.63
TOTAL	\$33,435.50	\$26,888.15	\$23,555.30	\$19,102.67
Balance on Hand, December 31, 1931.....	1931 \$ 6,497.73	1932 \$ 2,923.93	1933 \$ 1,585.10	1934 \$ 2,600.43

INTRODUCTION

To the nineteenth, twentieth, twenty-first and twenty-second Annual Reports of the State Coal Mine Inspection Department is herewith submitted.

During these years complete office records were kept, but the reduced income from a much less than average production made it impossible to publish the regular Annual Report in the standard book forms used in all previous years.

The adoption of a license fee for all mines, together with a somewhat increased tonnage and better collection of the four-mill tax from which the major part of the income of the department is derived, have resulted in the accumulation of enough financial reserve to take care of the expense of this publication covering the four-year period from 1931 to 1934, inclusive.

This issue will bring the Coal Mining Department reports up to date. The tables herein contained are grouped together in consecutive years.

Some smaller changes have been made in assembling the records, but all important data necessary to make a complete record will be found in this volume.

The completeness of the information contained in this report reflects great credit on the clerical staff which had the diligence and interest in their work, with little hope that their efforts would be of any avail, to keep the detailed data so well arranged and filed as to make the publication readily possible after so long an interval of stagnation due to non-activity in the industry itself.

THOMAS ALLEN,
State Inspector of Coal Mines.

**SUMMARY OF WORK DONE BY FIELD FORCE
DURING 1931-1934**

	1931	1932	1933	1934
Total number of inspections made	1,044	832	624	788
Total number of mines inspected	348	413	421	429
Number of fatal accidents investigated	29	29	20	21
Number of inquests attended....	22	28	13	19
Number of complaints investigated	59	48	54	39
Prosecutions	3	2	-----	-----
Miles travelled by automobile..	51,572	34,975	22,167	24,400
Cost of Automobile travel.....	\$ 4,317.22	\$ 2,939.04	\$ 1,841.38	\$ 1,902.80
Cost of railroad travel.....	\$ 195.30	\$ 199.15	\$ 223.27	\$ 199.74
Number of scales inspections....	8	6	33	24

THOMAS ALLEN, E.M.

On October 20, 1934, Mr. Thomas Allen, of Grand Junction, Colorado, was provisionally appointed State Inspector of Coal Mines. He was certified to act permanently as Chief Inspector on November 23, 1934, after having passed highest in a competitive examination given by the Civil Service Commission.

Mr. Allen received his training as a mining engineer in England. He came to Wyoming in 1907 and was engaged as a coal mining engineer by several companies. His record shows great ability and practical experience in his line of work. There is no question but he will be an able administrator of the Coal Mine Inspection Department.

ADA R. TIBBITS,
Chief Clerk, State Inspector of Coal Mines.

DIRECTORY OF COAL MINES IN THE STATE OF COLORADO FOR THE YEAR ENDING DECEMBER 31, 1934

Name of Mine	Name of Manager or Technical Superintendent	Name of Mine Superintendent	Post Office of Mine	Railroad to Mine	Kind of Opening				
					Shaft Depth	Length of Shaft	Length of Tunnels	Length of Tunnels	Average Thickness of Seam
W. J. Nelson	W. J. Nelson	W. J. Nelson	Burnham	None	100	20	1000	500	10
T. E. Cox	T. E. Cox	T. E. Cox	Burnham	None	100	20	1000	500	10
Antonito & Holtie	Antonito & Holtie	Antonito & Holtie	Burnham	None	100	20	1000	500	10
Blue Mountain	Blue Mountain	Blue Mountain	Burnham	None	100	20	1000	500	10
Rocky Mountain Fuel Co.	Rocky Mountain Fuel Co.	Rocky Mountain Fuel Co.	Burnham	None	100	20	1000	500	10
James Horan & Associates	James Horan & Associates	James Horan & Associates	Burnham	None	100	20	1000	500	10
National Fuel Co.	National Fuel Co.	National Fuel Co.	Burnham	None	100	20	1000	500	10
Longville-Lafayette Coal Co.	Longville-Lafayette Coal Co.	Longville-Lafayette Coal Co.	Burnham	None	100	20	1000	500	10
Dick Allis	Dick Allis	Dick Allis	Burnham	None	100	20	1000	500	10
Black Diamond Fuel Co.	Black Diamond Fuel Co.	Black Diamond Fuel Co.	Burnham	None	100	20	1000	500	10
Pluto Coal Co.	Pluto Coal Co.	Pluto Coal Co.	Burnham	None	100	20	1000	500	10
Domestic Coal Co.	Domestic Coal Co.	Domestic Coal Co.	Burnham	None	100	20	1000	500	10
Glendale Coal Co.	Glendale Coal Co.	Glendale Coal Co.	Burnham	None	100	20	1000	500	10
Hibb. View Coal Co.	Hibb. View Coal Co.	Hibb. View Coal Co.	Burnham	None	100	20	1000	500	10
Rock Coal Co.	Rock Coal Co.	Rock Coal Co.	Burnham	None	100	20	1000	500	10
Hill-Cotton Coal Co.	Hill-Cotton Coal Co.	Hill-Cotton Coal Co.	Burnham	None	100	20	1000	500	10
Arrow Coal Co.	Arrow Coal Co.	Arrow Coal Co.	Burnham	None	100	20	1000	500	10
Hoover Coal Co.	Hoover Coal Co.	Hoover Coal Co.	Burnham	None	100	20	1000	500	10
High Coal Co.	High Coal Co.	High Coal Co.	Burnham	None	100	20	1000	500	10
Paragon Coal Co.	Paragon Coal Co.	Paragon Coal Co.	Burnham	None	100	20	1000	500	10
Black Diamond Coal Co.	Black Diamond Coal Co.	Black Diamond Coal Co.	Burnham	None	100	20	1000	500	10
Independent Coal Co.	Independent Coal Co.	Independent Coal Co.	Burnham	None	100	20	1000	500	10
States Hall Coal Co.	States Hall Coal Co.	States Hall Coal Co.	Burnham	None	100	20	1000	500	10
Hillside Coal Co.	Hillside Coal Co.	Hillside Coal Co.	Burnham	None	100	20	1000	500	10
Hibb. Coal Co.	Hibb. Coal Co.	Hibb. Coal Co.	Burnham	None	100	20	1000	500	10
Reynold Pool Co.	Reynold Pool Co.	Reynold Pool Co.	Burnham	None	100	20	1000	500	10
Western Star Coal Co.	Western Star Coal Co.	Western Star Coal Co.	Burnham	None	100	20	1000	500	10
Dien Kuhn	Dien Kuhn	Dien Kuhn	Burnham	None	100	20	1000	500	10
Holwick Coal Co.	Holwick Coal Co.	Holwick Coal Co.	Burnham	None	100	20	1000	500	10
Ponk. Vowell	Ponk. Vowell	Ponk. Vowell	Burnham	None	100	20	1000	500	10
Wright Barker	Wright Barker	Wright Barker	Burnham	None	100	20	1000	500	10
Guy Jordan	Guy Jordan	Guy Jordan	Burnham	None	100	20	1000	500	10
Mayo Coal Co. & City Co.	Mayo Coal Co. & City Co.	Mayo Coal Co. & City Co.	Burnham	None	100	20	1000	500	10
Conduits Coal Co.	Conduits Coal Co.	Conduits Coal Co.	Burnham	None	100	20	1000	500	10
J. M. Duthrym & Sons	J. M. Duthrym & Sons	J. M. Duthrym & Sons	Burnham	None	100	20	1000	500	10
H. P. Sims	H. P. Sims	H. P. Sims	Burnham	None	100	20	1000	500	10
Elk Park Fuel Co.	Elk Park Fuel Co.	Elk Park Fuel Co.	Burnham	None	100	20	1000	500	10
Colorado Springs Co.	Colorado Springs Co.	Colorado Springs Co.	Burnham	None	100	20	1000	500	10
Althorne Fuel Co.	Althorne Fuel Co.	Althorne Fuel Co.	Burnham	None	100	20	1000	500	10
Thomas Mining Co.	Thomas Mining Co.	Thomas Mining Co.	Burnham	None	100	20	1000	500	10
Carib. Coal Co.	Carib. Coal Co.	Carib. Coal Co.	Burnham	None	100	20	1000	500	10
Pluto Coal Co.	Pluto Coal Co.	Pluto Coal Co.	Burnham	None	100	20	1000	500	10
Ind. Coal Co.	Ind. Coal Co.	Ind. Coal Co.	Burnham	None	100	20	1000	500	10
States Hall Pool Co.	States Hall Pool Co.	States Hall Pool Co.	Burnham	None	100	20	1000	500	10
Hollins Pool Co.	Hollins Pool Co.	Hollins Pool Co.	Burnham	None	100	20	1000	500	10
Hibb. Coal Co.	Hibb. Coal Co.	Hibb. Coal Co.	Burnham	None	100	20	1000	500	10
Reynold Pool Co.	Reynold Pool Co.	Reynold Pool Co.	Burnham	None	100	20	1000	500	10
Hoover Coal Co.	Hoover Coal Co.	Hoover Coal Co.	Burnham	None	100	20	1000	500	10
Longville Coal Co.	Longville Coal Co.	Longville Coal Co.	Burnham	None	100	20	1000	500	10
Victor-Victorian Fuel Co.	Victor-Victorian Fuel Co.	Victor-Victorian Fuel Co.	Burnham	None	100	20	1000	500	10
Uphoria Fuel & Iron Co.	Uphoria Fuel & Iron Co.	Uphoria Fuel & Iron Co.	Burnham	None	100	20	1000	500	10
Canon Park Diamond Pool Co.	Canon Park Diamond Pool Co.	Canon Park Diamond Pool Co.	Burnham	None	100	20	1000	500	10
Galena & Purple	Galena & Purple	Galena & Purple	Burnham	None	100	20	1000	500	10
Union Monarch Coal Co.	Union Monarch Coal Co.	Union Monarch Coal Co.	Burnham	None	100	20	1000	500	10
Diamond Park Coal Co.	Diamond Park Coal Co.	Diamond Park Coal Co.	Burnham	None	100	20	1000	500	10
Uphoria Coal Co.	Uphoria Coal Co.	Uphoria Coal Co.	Burnham	None	100	20	1000	500	10
Amer. Independent Coal Co.	Amer. Independent Coal Co.	Amer. Independent Coal Co.	Burnham	None	100	20	1000	500	10
Paragon Reliance Coal Co.	Paragon Reliance Coal Co.	Paragon Reliance Coal Co.	Burnham	None	100	20	1000	500	10
Hibb. Coal Co.	Hibb. Coal Co.	Hibb. Coal Co.	Burnham	None	100	20	1000	500	10
E. H. Prill	E. H. Prill	E. H. Prill	Burnham	None	100	20	1000	500	10
H. H. Prill	H. H. Prill	H. H. Prill	Burnham	None	100	20	1000	500	10
Royal Gorge Coal Co.	Royal Gorge Coal Co.	Royal Gorge Coal Co.	Burnham	None	100	20	1000	500	10
Griffith Coal Co.	Griffith Coal Co.	Griffith Coal Co.	Burnham	None	100	20	1000	500	10
J. H. Hall Coal Co.	J. H. Hall Coal Co.	J. H. Hall Coal Co.	Burnham	None	100	20	1000	500	10
Fawn Hollow Coal Co.	Fawn Hollow Coal Co.	Fawn Hollow Coal Co.	Burnham	None	100	20	1000	500	10
Bluff Springs Leasing Co.	Bluff Springs Leasing Co.	Bluff Springs Leasing Co.	Burnham	None	100	20	1000	500	10
Comin. Red Arrow Coal Co.	Comin. Red Arrow Coal Co.	Comin. Red Arrow Coal Co.	Burnham	None	100	20	1000	500	10
Perkin Coal Co.	Perkin Coal Co.	Perkin Coal Co.	Burnham	None	100	20	1000	500	10
Freight Coal Co.	Freight Coal Co.	Freight Coal Co.	Burnham	None	100	20	1000	500	10
Brookdale Coal Co.	Brookdale Coal Co.	Brookdale Coal Co.	Burnham	None	100	20	1000	500	10
Brook Union Coal Co.	Brook Union Coal Co.	Brook Union Coal Co.	Burnham	None	100	20	1000	500	10
Reynold Coal Co.	Reynold Coal Co.	Reynold Coal Co.	Burnham	None	100	20	1000	500	10
Crinion Imperial Coal Co.	Crinion Imperial Coal Co.	Crinion Imperial Coal Co.	Burnham	None	100	20	1000	500	10
Crinion Ideal Coal Co.	Crinion Ideal Coal Co.	Crinion Ideal Coal Co.	Burnham	None	100	20	1000	500	10
Pharmer Coal Co.	Pharmer Coal Co.	Pharmer Coal Co.	Burnham	None	100	20	1000	500	10
James Brothers	James Brothers	James Brothers	Burnham	None	100	20	1000	500	10
Paul Ursulin	Paul Ursulin	Paul Ursulin	Burnham	None	100	20	1000	500	10
Brother Union Coal Co.	Brother Union Coal Co.	Brother Union Coal Co.	Burnham	None	100	20	1000	500	10
Union Imperial Coal Co.	Union Imperial Coal Co.	Union Imperial Coal Co.	Burnham	None	100	20	1000	500	10
Little Johnny Coal Co.	Little Johnny Coal Co.	Little Johnny Coal Co.	Burnham	None	100	20	1000	500	10
Hoover Coal Co.	Hoover Coal Co.	Hoover Coal Co.	Burnham	None	100	20	1000	500	10
Hoover Mining Co.	Hoover Mining Co.	Hoover Mining Co.	Burnham	None	100	20	1000	500	10
W. G. McDonald	W. G. McDonald	W. G. McDonald	Burnham	None	100	20	1000	500	10
Gilman Asphaltine Co.	Gilman Asphaltine Co.	Gilman Asphaltine Co.	Burnham						

SHOWING BY COMPANIES: Total number of tons produced and number of men employed; number of fatal accidents; number of non-fatal accidents.

COMPANIES	Number of Men Employed, 1931	Total Production, 1931	Number of Men Employed, 1932	Total Production, 1932	No. of Non- fatal Acci- dents, 1931	No. of Non- fatal Acci- dents, 1932	No. of Non- fatal Acci- dents, 1932
					No. of Non- fatal Acci- dents, 1931	No. of Non- fatal Acci- dents, 1932	No. of Non- fatal Acci- dents, 1932
Ainsworth, H. A.	696	2	95,913	143	18	679	3
Ainsworth & Lewis	67,412	57	67,412	57	16	68,984	5
Alamo Coal Co.						6,507	16
Allan, David						2,345	2
Altitude Fuel Co.							
American Independent Coal Co.	82,076	144	144	1	7	2,000	8
American Smelting & Refining Co.	291	1	486	2		58,183	117
Amos Coal Co.						423	1
Anchor Coal Co.						823	2
Anderson, Frank H.						70	1
Anderson, Stuart							
Antonita & Bellini						265	2
Appleton Coal Co.	1,082	2	35	2		315	2
Archuleta, L., Coal Co.							
Audin, Clement						1,636	3
Ayshire Coal Co.	17,771	49	2,042	3		794	3
Aztec Coal Mining Co.	2,042	3	102	1		4	8,872
Babson Coal Co.						1,650	46
Bainton, John							3
Bald Coal Co.							1
Baldwin Fuel Co.	439	1	1,492	3		1,009	10
Baldy Coal Co.						300	1
						1,770	3
							2

STATE INSPECTOR OF COAL MINES

Barbour Coal Co.	69,967	94	5	42,738	142	3
Barker, Wright	1,547	2	.....	2,696	3	.....
Barnell, Geo. M.	4,193	5	.....	2,252	5	2
Batchelor, Chas. ....	.....	.....	.....	426	2	.....
Baudino & Co.	2,495	3	.....	2,563	3	.....
Beach, Allan & Associates	275	2	.....	.....	.....	.....
Bear Canon Coal Co.	55,470	89	1	27,947	79	7
Bear River Coal Co.	29,908	63	.....	45,411	66	13
Bear, Tony .....	.....	.....	.....	1,283	4	.....
Beer Coal Co.	3,869	9	6	887	10	2
Bellma & Antonita	344	1	.....	.....	.....	.....
Bellord, Angelo	260	1	.....	234	2	.....
Bennett Coal Co.	280	2	.....	668	2	.....
Bennett, N. D. ....	.....	.....	.....	596	5	.....
Black Cat Coal Co. ....	.....	.....	.....	.....	.....	.....
Black Diamond Coal Co.	3,712	7	4	2,171	4	15
Black Diamond Fuel Co.	21,152	45	6	58,385	55	.....
Black Hawk Coal Co.	7,176	10	1	4,146	10	.....
Blue Bird Mines, Inc.	299	3	.....	3,083	9	4
Blue Blaze Coal Co. ....	.....	.....	.....	.....	.....	.....
Bluff Springs Leasing Co.	14,539	33	2	5,876	22	4
Blunt & Audin.	542	2	.....	.....	.....	.....
Boaglio, Bert	650	2	.....	.....	.....	.....
Boaglio Coal Co. ....	.....	.....	24	332	3	.....
Boulder Valley Coal Co.	251,064	148	.....	207,515	120	3
Bowman, Gullermo .....	.....	.....	.....	.....	.....	39
Boyd, Claude .....	.....	.....	.....	.....	.....	.....
Braden, Olney	105	2	.....	80	1	.....
Brewster Mining Co.	185	1	.....	161	1	.....
Brown, Arthur .....	.....	.....	.....	42	2	.....
Buddy Coal Co.	545	3	.....	577	5	.....
Buick Coal Co. ....	.....	.....	.....	.....	.....	.....
Burdick Coal Co. ....	.....	.....	.....	2,378	8	.....
Burro Creek Coal Co.	49	1	.....	400	2	.....
*Byrnes, Peter .....	.....	.....	.....	.....	.....	1
Cactus Coal Co. ....	.....	.....	.....	230	3	.....
Caddell Coal Co.	908	4	.....	1,253	8	.....
Caldirola, Coal Co.	794	9	.....	16,033	18	3
Calliente Coal Co.	52,647	140	11	39,251	147	5
Calumet Fuel Co.	350	1	31	283	2	24
	286,821			192,261		

TABLE A—1931-1932—Continued

COMPANIES	Total Production, 1931	Number of Men Employed, 1931	Total Production, 1932	Number of Men Employed, 1932	No. of Non-Fatal Acci- dents, 1932	No. of Non-Fatal Acci- dents, 1931	No. of Non-Fatal Acci- dents, 1931	No. of Non-Fatal Acci- dents, 1932	No. of Non-Fatal Acci- dents, 1932
Canon Imperial Coal Co.	9,386	26	10	1,624	24	4	4	4	4
Canon Liberty Coal Co.	.....	.....	.....	349	6	.....	.....	5	5
Canon Monarch Coal Co.	9,242	27	6	13,505	25	.....	.....	5	5
Canon Quality Coal Co.	39,894	86	6	7,823	26	.....	.....	11	11
Canon Reliance Coal Co.	.....	.....	.....	47,628	86	.....	.....	.....	.....
Carbon Creek Coal Co.	598	1	.....	.....	.....	.....	.....	.....	.....
Carestia, Paul...	200	2	.....	388	1	.....	.....	.....	.....
Cash & Carry Coal Co.	5,587	7	1	650	1	.....	.....	.....	.....
Castle Coal Co...	525	2	1	.....	.....	1	1	1	1
Castle Rock Coal Co.	.....	.....	.....	4,653	6	.....	.....	.....	.....
Centennial Coal Co.	9,833	42	.....	1,004	2	.....	.....	.....	.....
Chergo, Tcm...	75	1	.....	.....	.....	1	1	1	1
Church & Schiegle...	.....	.....	.....	130	1	.....	.....	.....	.....
Clark Coal Co...	3,451	4	.....	43	3	.....	.....	.....	.....
Clark Gulch Coal Co.	.....	.....	.....	1,809	3	.....	.....	.....	.....
Clayton Coal Co.	236,126	256	38	234,410	288	1	1	54	54
Coal Gulch Coal Co...	4,93	2	.....	475	1	.....	.....	.....	.....
Colona Coal Co...	146	1	4	709,001	1,385	1	1	82	82
Colorado Fuel & Iron Co.	1,129,188	2,280	227	.....	.....	.....	.....	.....	.....
Colorado Pinnacle Coal Co.	1,008	6	1	.....	.....	.....	.....	.....	.....
Colorado Springs Co...	46,092	65	8	40,286	64	3	3	31	31
Colorado & Utah Coal Co.	103,020	160	17	101,824	133	.....	.....	.....	.....
Conrad, D. M...	.....	.....	.....	371	1	.....	.....	.....	.....
Consolidated Coal & Coke Co.	106,705	109	6	102,684	117	1	1	7	7
Converse Coal Co...	.....	.....	.....	461	1	.....	.....	.....	.....
Cook, O. C...	1,568	15	207	28,670	4	.....	.....	.....	.....
Corley Coal Co...	26,843	31	10	28,670	34	17	17	17	17

Cortez Coal Co.	640	1	300	2
Costa Coal Co.	487	2	190	2
Cox Coal Co.	26,785	55	22,545	28
Cox, T. L.				3
Crested Butte Coal Co.				
Cribbs, J. D.	29,305	182	26,493	71
Crumpley Coal Co.	339	2	110	2
Crystal Creek Coal Co.				
Cuckoo Coal Co.				
Cushman, G. B.				
Daisy Coal Co.				
Dale & Smith	3,067	5	1,665	5
Danville Coal Co.	3,506	4	1	2,894
Darry, James & Son				2
Davich Coal Co.	668	2		
Davidson, Geo. W.				
De Boy, Frank	74	1	103	1
Delosso Coal Co.	853	2	624	1
Delisa Canon Coal Co.	21,455	30	16,924	36
Dick Coal Co.	7,090	18	9	1
25,751	32	1	17,657	22
Domestic Coal Co.				
Double Dick Coal Co.	3,874	4	8	7
Double Dick Coal Co.	21,638	41	5,172	9
Dowhower, Jake	31	1	18,761	44
Drennen Coal Co.	1,694	3		6
Dufur, Xavier	165	1		
Dunkle & Johnson				
Durango Coal Co.	931	6	1,269	2
Edna Coal Co.	352	2	543	2
Elders Coal Co.	592	4		
Eldorado Coal Co.				
Electric Coal Co.	3,479	6	2,263	4
Elkhart Coal Co.	15,853	56	17,091	40
Ellidge, Frank				2
Elliott & Magee				3
Empire Coal Mining Co.	35,746	66	100	2
Estes Coal Co.				4
Fairfield, C. F.	1,864	2	495	53
Farmers Mutual Coal Co	400	1	1,445	2
Fawn Hollow Coal Co.	785	4	500	2
Fidirizzi, Donald & Miller				3
	131	2	762	10
			175	1

TABLE A—1931-1932—Continued

COMPANIES	Total Production, 1931		Total Production, 1932		Number of Men Employed, 1931	Number of Men Employed, 1932	No. of Non-Fatal Acci- dents, 1931	No. of Non-Fatal Acci- dents, 1932
	Number of Men Employed, 1931	Number of Men Employed, 1932	Number of Men Employed, 1931	Number of Men Employed, 1932				
Fitzsimmons Coal Co.	499	2	635	1				
Ford, J. D.	129	1	1,493	3				
Foreman, Thos. D.	384	1	1,382	9				
Franceville Fuel Co.	5,283	15	380	1				
Frisco Coal Co.	385	3	290	2				
Fruth, Geo.	649	9	194	2				
Fruth & Michelletti	697	2	1,042	2				
Gabella, Thos.	203	3	6,340	10				
Glassacher, J. C.			7,184	9				
Gantz, D.	104	2	402	3				
Gardner, Kenneth	208	3	656	4				
Garfield Coal Co.	7,890	11	1,258	4				
Gearhart, Ballard	7,027	7						
Gelwick Coal Co.		2	6,869	8				
Gem Coal Co.	821		493	3				
George, S., & Sons.	1,234	10	15,224	47				
Gilmour Coal Co.	297	15						
Giilson Asphaltum Co.	7,452	9						
Giordino Coal Co.								
Giuliano & Carpina								
Giuliano Coal Co.	5,697	23	9					
Glover, W. R.			10					
Golden Dawn Coal Co.	612	2						
Good Fuel Co.	18,313	26	19					
Gordon Coal Co.	37,145	58	5					
Grasso Coal Co.	176	2	473	2				
Gray, L. J.	321	1	324	1				

Gray, W. W.	.....	.....	.....	511	2	.....
Green, Thomas	.....	.....	.....	839	2	.....
Green Valley Coal Co.	.....	.....	.....	5,565	6	.....
Greenwood & Arnott	.....	.....	.....	1	1	.....
Griffiths Coal Co.	.....	.....	.....	12,601	17	.....
Hackman, Geo.	.....	.....	.....	977	3	.....
Hardman & Son	6,344	6	1	.....	.....	1
Harrington, A. L.	70	1	.....	65	1	.....
Hart Coal Co.	13,973	16	3	855	4	.....
Harvey, M. R., & Sons	.....	.....	.....	.....	.....	.....
Hayden Coal Co.	.....	.....	.....	90,083	112	1
Hayden Valley Mutual Coal Co.	320	3	1	.....	.....	10
Hendricks, Robert	1,200	3	.....	1,199	3	.....
Hice Coal Co.	650	2	.....	.....	.....	.....
Hidden Treasure Coal Co	2,350	4	.....	594	2	.....
High View Coal Co.	5,564	7	1	1,442	3	.....
Hollingsworth, Jno.	369	2	.....	5,769	7	1
Home Fuel & Supply Co.	3,755	6	.....	307	3	.....
Hopper, A. F.	.....	.....	.....	2,948	5	.....
Horace Anthracite Co.	24,761	67	4	2,593	1	.....
Horton Coal Co.	510	2	.....	25,390	78	1
Howells Fuel Co.	48,895	117	11	264	1	.....
Huerfano Coal Co.	553	2	.....	3,003	14	.....
Hunter, J. B.	501	2	.....	51,750	108	12
Hunt, Wm. M.	.....	.....	.....	243	2	.....
Ideal Coal & Trading Co.	158,787	163	17	115	1	.....
Imperial Coal Co.	158,787	1	1	128,747	141	24
Ince, Bud.	90	2	1	80	2	.....
Independent Coal Co.	2,580	2	1	2,003	3	.....
James Brothers	600	2	1	475	2	.....
Jarvis Coal Co.	.....	.....	.....	174	3	.....
Jeffries Coal Co.	6,148	7	11	4,265	5	2
Jewell Collieries Corp.	33,542	49	.....	18,614	46	4
Jimenez, Manuel	.....	.....	.....	1,467	4	.....
Joerger Coal Co.	850	2	.....	.....	.....	.....
Jones Coal Co.	857	1	.....	361	1	.....
Jones & Trachte	310	1	.....	32	1	.....
Juanta Coal & Coke Co.	33,597	44	2	27,186	36	5
Kattning, Martin	.....	.....	.....	724	4	.....
Kennedy, H. A.	942	2	.....	338	2	.....

TABLE A—1931-1932—Continued

COMPANIES	Number of Men Employed, 1931		Number of Men Employed, 1932		Number of Men Employed, 1933	
	No. of Non-Fatal Acci- dents, 1931	Total Production, 1931	No. of Non-Fatal Acci- dents, 1932	Total Production, 1932	No. of Non-Fatal Acci- dents, 1933	Total Production, 1933
Keystone Coal Co.	44,414	83	11	39,184	69	8
Klikus Coal Co.	—	—	—	100	3	—
King & Mitchell	45	2	—	921	1	—
Knapp, Richard	50	3	1	—	—	—
Knox Coal Co.	—	—	—	—	—	—
Koak Coal Co.	60	9	4	2,673	3	—
Kovak & Skoda	933	2	—	3,543	8	—
Ko-Z Coal Co.	182	6	—	6,434	13	—
Kurie Coal Co.	13,755	25	10	1,805	5	—
Leader Coal Co.	—	—	—	—	—	—
Le Donne, Jas.	500	3	—	1,165	4	—
Leonard, M. F.	114	1	—	1,176	1	—
Leyden Lignite Co.	825	82	18	109,557	87	17
Bell Coal Co.	678	2	—	—	—	—
Liberty Coal Co.	370	2	—	—	—	—
Lilley Coal & Land Co.	43,753	42	5	38,479	39	5
Lion Canon Coal Co.	1,188	2	—	—	—	—
Clipps & Bosco Coal Co.	1,250	5	—	1,915	6	—
Louisville-Lafayette Coal Co.	55,434	58	14	91,987	82	2
Lowe Coal Co.	—	—	—	2,151	5	—
Lowery & Spence	400	2	—	315	1	—
Lucia, B. C.	—	—	—	282	2	—
McBroom, Chas.	130	1	—	96	1	—
McCargish, Ed.	97	1	—	114	1	—
McCroskey, R. Z.	106	1	—	—	—	—
McDonald Coal Co.	—	—	—	1,819	4	7
McGinley, Wm.	1,502	2	—	2,175	2	—

McMillin, Geo.	153,901	171	1	19	132,277	168	2	19
McNeil Coal Corp.	837	2		1,363	896	623	2	3
McShane & Ritter	35	4		3	3	4		1
Mancos Coal & Fuel Co.								
Mancos Hill Coal Co.								
Marriott, Wm.	153	1		161	636	129	3	
Marsh Coal Co.	871	2		305	129	809	1	
Martinez, Ralph	519	1		1	809	4	2	
Martorano & Son								
Mascot Coal, Oil & Clay Co.	1,589	5		1				1
Mattiivi & Son.	3,840	8		2,000	2,000	2,000	3	1
Medina, Pete.	80	2		14,111	1,803	280	29	
Micheli, Pio.	16,541	32		1	1,803	280	6	
Midwest Red Glow Co.	1,071	4		1	1,803	280	6	
Miller Coal Co.	1,222	7		1	1,803	280	2	
Minnequa Fuel Co.	11,544	25		4	19,065	124,825	24	1
Moffat Coal Co.	122,071	190		32	6,631	144	38	
Monroe Coal Co.	1,242	3		1	706	223	1	
Morgan, Wm.	2,045	6		1	1,546	220	2	
Morris, Geo. W.								
Mountain States Fuel Co.	204	3		514	220	2		
Mountain View Coal Co.	65	4						
Mt. Lincoln Coal Co.	1,078	2						
Mundell, J. W.								
Murr, P. A.	88	1		351	351	351	2	
Murrell Coal Co.	17,878	60		18	3,224	70	2	
Mutual Coal Co.								
Myers & West.	303,450	302		58	244,664	286	2	
National Fuel Co.	2,340	8		4	3,395	10	48	
New Creek Coal Co.					2,858	17		
New Ross Coal Co.					1,276	16		
Niggerhead Mining Co.	127	2						
Nix, C. E.	40,031	49		2	41,127	53	5	
North Park Coal Co.								
North Star Coal Co.								
Nossaman, W. J.								
Oakdale Coal Co.	12,016	31		4	3,317	23	3	
Oberding, W. J.	190	1		4	203	1		
Ohio Creek Coal Co.	4,162	7		4	1,772	5		

TABLE A—1931-1932—Continued

COMPANIES	Number of Men Employed, 1931	Total Production, 1931	Number of Men Employed, 1932	Total Production, 1932	Number of Fatal Acci- dents, 1931	Number of Non- Fatal Acci- dents, 1931	No. of Non- Fatal Acci- dents, 1932	Number of Fatal Acci- dents, 1932	No. of Non- Fatal Acci- dents, 1932
O. K. Coal Co.	5,032	13	.....	4,245	10	.....	1	.....	5
Oliver Coal Co.	36,232	45	.....	46,704	41	.....	4	.....	4
Orecchio Coal Co.	8,063	13	.....	7,694	25	.....	.....	.....	.....
Overcamp, Walter	72	2	.....	4,97	3	.....	.....	.....	.....
Owen, R.	1,641	3	.....	49	1	.....	.....	.....	.....
Owen, W. H.	566	2	.....	.....	.....	.....	.....	.....	.....
Palisade Clean Heat Coal Co.	8,713	15	.....	6,335	10	.....	2	.....	.....
Panther Coal Co.	3,298	3	.....	1,869	3	.....	.....	.....	.....
Panther Farmers Coal Co.	79	1	.....	.....	.....	.....	.....	.....	.....
Payan Bros.	20,117	40	9	16,955	43	.....	5	.....	.....
Peachey Coal Co.	433	2	.....	709	3	.....	.....	.....	.....
Peacock Coal Co.	783	4	.....	1,738	5	.....	.....	.....	.....
Peerless Coal Co. (Boulder) ....	.....	4	.....	1,278	3	.....	.....	.....	.....
Peerless Coal Co. (La Plata)	449	4	.....	149	3	.....	1	.....	.....
Perino Coal Co. ....	.....	.....	.....	2,586	.....	5	.....	.....	.....
Petry, S., Coal Co.	870	3	.....	404	2	.....	.....	.....	.....
Petry & Florini.	1,421	3	.....	486	2	.....	.....	.....	.....
Phelan & Shaver. ....	.....	.....	.....	5,586	28	.....	.....	.....	.....
Phillipp & Carrahan. ....	.....	.....	2	.....	.....	.....	.....	.....	.....
Phoenix Fuel Co.	8,268	29	.....	.....	.....	.....	.....	.....	.....
Pickett, L. W. ....	.....	.....	.....	792	4	.....	23	.....	7
Pikes Peak Fuel Co.	241,655	168	.....	216,441	160	.....	.....	.....	.....
Pinnacle-Kemmerer Fuel Co.	25,767	75	.....	31,991	63	.....	.....	.....	.....
Pittsburgh Coal Co.	1,028	2	.....	1,216	4	.....	.....	.....	.....
Placita Coal Mining Co.	16,175	16	.....	1,852	9	.....	.....	.....	.....
Pollard, C. F.	1,924	2	.....	2,085	2	.....	.....	.....	.....

Pollo, John, Jr.	30	1	1,136	2
Powell, L. V.	1,183	3	119	1
Pritchard, Chas.	46,484	82	740	2
Pryor Coal Mining Co.			42,942	1
Rasmussen, H. J.			76	1
Rauman Coal Co.	1,587	2	1,460	2
Red Canon Coal Co.	5,134	5	3,927	4
Reed & Maylan	570	3		
Reinau, R. C.	133	1	747	1
Rice, Arthur			40	1
Rice, Chas. R.	83	1	90	1
Richardson Coal Co.	907	2	886	2
Richardson, Dan	396	1		
Rifle Coal Mines, Inc.	1,413	2	456	2
Riggio, Nick	687	2	519	2
Riggs, W. E.				
Ritchneg, John	112	3	1,451	3
Riverside Coal Co.	906	2	1,108	2
Roberson Coal Co.	2,730	6	1,846	5
Rocchio Coal Co.			780	2
Rocky Mountain Fuel Co	6,989	11	3	
Roggero, Joseph	716,277	736	121	636,851
Rolfe, George	110	2	332	3
Rollins Fuel Co.	5,880	7	6,209	6
Royers Coal Co.			256	2
Rudy Coal Co.				
Russell, W. E., Coal Co.	200	2		
Sagrillo, Frank	119	2	12	92,406
Sagrillo & Clark Coal Co.	64,372	72	671	66
San Isabel Coal Mining Co.	250	2		1
Santa Fe Coal Co.	111	1		21
Santistevan, Apolonio	829	6	1,288	3
Schultz, Herman	20	2		
Seven Points Coal Co.	310	1	179	1
Shamrock Coal Co.	8,428	6		
Shay, J. O.			62,925	86
Sheilton, H. D.			394	2
Shew & Bryan			35	1
Shagie, E. G.	205	2	460	2
			410	2

TABLE A—1931-1932—Continued

COMPANIES	Total Production, 1931	No. of Men Employed, 1931	No. of Non-Fatal Acci- dents, 1931	Total Production, 1932	No. of Men Employed, 1932	No. of Non-Fatal Acci- dents, 1932	Fatal Acci- dents, 1932	No. of Non-Fatal Acci- dents, 1932	Fatal Acci- dents, 1932	Fatal Acci- dents, 1932	
Smith, H. J., Coal Co.	733	2	1	733	2	1	1	1	1	1	1
South Canon Mine Leasing Co.	13,002	11	4	13,002	11	4	1	1	1	1	1
South Park Coal Co.	200	4	1	200	4	1	1	1	1	1	1
Sowers Coal Co.	924	2	1	924	2	1	1	1	1	1	1
Spencer, Geo. S.	380	2	1	380	2	1	1	1	1	1	1
Stakish, Geo.	350	3	1	350	3	1	1	1	1	1	1
Standard Coal Co.	681	2	1	681	2	1	1	1	1	1	1
Star Coal Co.	3,731	7	1	3,731	7	1	1	1	1	1	1
States Hall Coal Co.											
Steel, Geo., & Co.											
Stokes, W. D.	2,343	6	1	2,343	6	1	1	1	1	1	1
Stove Canon Coal Co.	2,462	4	1	2,462	4	1	1	1	1	1	1
Storz Coal Co.	1,850	15	1	1,850	15	1	1	1	1	1	1
Sunrise Coal Co.	3,538	3	1	3,538	3	1	1	1	1	1	1
Sunshine Coal Co.	229	2	1	229	2	1	1	1	1	1	1
Sunset Coal Co.	393	2	1	393	2	1	1	1	1	1	1
Superior Fuel Co.	470	4	1	470	4	1	1	1	1	1	1
Sweet Bros. Coal Co.											
Talarico Bros.											
Taylor & Bierce.	311	1	1	311	1	1	1	1	1	1	1
Temple Fuel Co.	114,286	198	1	114,286	198	1	1	1	1	1	1
Thomas Coal Co.	546	2	1	546	2	1	1	1	1	1	1
Thomas Mining Co.	6,538	8	1	6,538	8	1	1	1	1	1	1
Thor Fuel Co.	7,588	55	1	7,588	55	1	1	1	1	1	1
Tipotsch, Frank	552	1	1	552	1	1	1	1	1	1	1
Torrid Coal Co.	12,568	27	1	12,568	27	1	1	1	1	1	1
Triangle Coal Co.	5,049	7	1	5,049	7	1	1	1	1	1	1

- No operation reported.
- † Cleaning up old mine.

TABLE A—1933-1934

SHOWING BY COMPANIES: Total number of tons produced and number of men employed; number of fatal accidents; number of non-fatal accidents.

COMPANIES	Total Production, 1933		No. of Men Employed, 1933		No. of Men Employed, 1934		Total Production, 1934		No. of Men Employed, 1934		No. of Men Employed, 1933		No. of Non-Fatal Acci- dents, 1933		No. of Non-Fatal Acci- dents, 1934		No. of Non-Fatal Acci- dents, 1934		No. of Non-Fatal Acci- dents, 1933	
	No. of Men Employed, 1933	No. of Men Employed, 1934	No. of Men Employed, 1933	No. of Men Employed, 1934	No. of Men Employed, 1933	No. of Men Employed, 1934	No. of Men Employed, 1933	No. of Men Employed, 1934	No. of Men Employed, 1933	No. of Men Employed, 1934	No. of Men Employed, 1933	No. of Men Employed, 1934	No. of Men Employed, 1933	No. of Men Employed, 1934	No. of Men Employed, 1933	No. of Men Employed, 1934	No. of Men Employed, 1933	No. of Men Employed, 1934	No. of Men Employed, 1933	No. of Men Employed, 1934
Adair, Ivor	221	221	2	2	2	2	478	478	1	2	2	2	2	2	2	2	2	2	2	2
Ainsworth, H. A.	440	440	2	2	2	2	168	168	2	2	2	2	2	2	2	2	2	2	2	2
Alamo Coal Co.	28,449	28,449	52	52	52	52	52,958	52,958	96	96	96	96	96	96	96	96	96	96	96	96
Albion Coal Co.	75	75	1	1	1	1	58,684	58,684	93	93	93	93	93	93	93	93	93	93	93	93
Allan, David	53,117	53,117	76	76	76	76	58,684	58,684	93	93	93	93	93	93	93	93	93	93	93	93
Allan, Clarence	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Altitude Fuel Co.	8,048	8,048	19	19	19	19	9	154	2	2	2	2	2	2	2	2	2	2	2	2
American Independent Coal Co.	8,093	8,093	17	17	17	17	1	12,073	19	19	19	19	19	19	19	19	19	19	19	19
American Smelting & Refining Co.	8,4889	8,4889	107	107	107	107	13	11,609	25	25	25	25	25	25	25	25	25	25	25	25
Amos Coal Co.	263	263	1	1	1	1	13	82,804	126	126	126	126	126	126	126	126	126	126	126	126
Anchor Leasing Co.	878	878	3	3	3	3	—	542	2	2	2	2	2	2	2	2	2	2	2	2
Antonita & Bellino	416	416	2	2	2	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Arrow Coal Co.	2,445	2,445	7	7	7	7	3	190	2	2	2	2	2	2	2	2	2	2	2	2
Arrowhead Coal Co.	99	99	1	1	1	1	1	100	1	1	1	1	1	1	1	1	1	1	1	1
Audin, Clement	2,218	2,218	3	3	3	3	—	3,170	3	3	3	3	3	3	3	3	3	3	3	3
Ayrshire Coal Co.	515	515	2	2	2	2	—	206	2	2	2	2	2	2	2	2	2	2	2	2
Aztec Coal Mining Co.	10,216	10,216	35	35	35	35	2	11,179	35	35	35	35	35	35	35	35	35	35	35	35
Babel, Nick	—	—	—	—	—	—	—	500	1	1	1	1	1	1	1	1	1	1	1	1
Baby, Michael	133	133	1	1	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Babson Coal Co.	1,127	1,127	3	3	3	3	—	1,056	2	2	2	2	2	2	2	2	2	2	2	2
Bachy Coal Co.	223	223	2	2	2	2	—	4,535	13	13	13	13	13	13	13	13	13	13	13	13
Bald Coal Co.	4,771	4,771	13	13	13	13	2	850	2	2	2	2	2	2	2	2	2	2	2	2
Baldwin Fuel Co.	400	400	2	2	2	2	—	511	3	3	3	3	3	3	3	3	3	3	3	3
Baldy Coal Co.	1,130	1,130	2	2	2	2	—	676	4	4	4	4	4	4	4	4	4	4	4	4
Ballen & Combs	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

deaths, 1934

Fatal Acci-
dents, 1934

No. of Men
Employed, 1934

Total
Production,
1934

No. of Men
Employed, 1933

Fatal Acci-
dents, 1933

No. of Men
Employed, 1933

Total
Production,
1933

No. of Men
Employed, 1933

COMPANIES

Banner Coal Co.	3,381	11	3	904	14				
Barbour Coal Co.	53,263	80	11	38,483	100				
Bartier, Wright.	2,693	2		2,196	2				
Barnell, Geo. M.	1,902	5	1	1,910	4				
Bartello & Berte Coal Co.	140	2							
Bassick Coal Co.	156	3							
Batchelor, Chas.	331	1							
Baudino & Co.	1,831	6							
Bear Canon Coal Co.	8,835	32	1	14,358	40				
Bear River Coal Co.	31,843	61	13	42,276	52				
Bear, Tony	4,976	6							
Beaudette Coal Co.	68	3							
Beaver Valley Coal Co.									
Bedilien, George.				200	4				
Belloldi, Angelo.	186	1		451	2				
Belloldi, Vasco.									
Bennett Coal Co.	865	2							
Bennett, L. D.	75	4							
Bierce, Jas. A.	648	2							
Big Five Coal Co.	1,149	3							
Big Tree Coal Co.	85	2							
Black Cat Coal Co.	97	2							
Black Diamond Coal Co. (Delta)	614	4							
Black Diamond Fuel Co.	1,508	3							
Black Diamond Fuel Co.	54,005	67							
Black, Ernest.	4,516	9							
Black Hawk Coal Co.	476	2							
Blair King Coal Co.	1,500	2							
Blair Coal Co.									
Blue Flame Coal Co.									
Blue Ribbon Coal Co.	311	4							
Bluff Springs Leasing Co.	2,257	10	2	7,807	28				
Boaglio Coal Co.	600	3							
Bohlander Coal Co.									
Boulder Canon Coal Co.									
Boulder Valley Coal Co.	165,609	101	1	25	161,148	96			
Bowman, Guillermo.	826	2			641	2			
Brewster Mining Co.	421	2			18	1			
Brook Canon Coal Co.					2,165	6			
Brookside Coal Co.					3,993	11			
Brown, George.	746	3			1,412	2			
Buckeye Coal Co.					89	3			

TABLE A—1933-1934—Continued

COMPANIES	Total Production, 1933		No. of Men Employed, 1933		No. of Men Employed, 1934		Total Production, 1934		No. of Men Employed, 1934		No. of Men Employed, 1934	
	Non-Fatal Acci- dents, 1933	Non-Fatal Acci- dents, 1933	Non-Fatal Acci- dents, 1933	Non-Fatal Acci- dents, 1933	Non-Fatal Acci- dents, 1934							
Buddy Coal Co.	3,767	8	.....	.....	.....	1,814	2	.....	.....	.....	.....	.....
Bueno Coal Co.	365	1	.....	.....	.....	1,180	2	.....	.....	.....	.....	.....
Busy Bee Coal Co.	927	10	.....	2	4,331	6	.....	.....	1	.....	.....	.....
Cactus Coal Co.	996	2	.....	.....	.....	1,140	5	.....	.....	.....	.....	.....
Caddell Coal Co.	1,017	6	.....	.....	.....	978	5	.....	.....	.....	.....	.....
Caldirola Coal Co.	15,788	27	.....	7	17,237	18	.....	.....	.....	.....	.....	.....
Callente Coal Co.	38,895	109	.....	5	43,397	124	.....	.....	8	.....	.....	.....
Calumet Fuel Co.	152,071	257	.....	5	210,449	196	.....	.....	4	.....	.....	.....
Canon Black Diamond Coal Co.	9,848	28	.....	2	23,630	27	.....	.....	2	.....	.....	.....
Canon City Superior Coal Co.	270	10	.....	2	.....	.....	.....	.....	.....	.....	.....	.....
Canon Ideal Coal Co.	1,682	7	.....	2	2,919	2	.....	.....	.....	.....	.....	.....
Canon Imperial Coal Co.	1,193	5	.....	.....	499	6	.....	.....	.....	.....	.....	.....
Canon Liberty Coal Co.	20,249	40	.....	4	1,801	5	.....	.....	.....	.....	.....	.....
Canon Monarch Coal Co.	7,472	22	.....	5	20,079	27	.....	.....	17	.....	.....	.....
Canon Quality Coal Co.	42,269	100	.....	18	1,760	22	.....	.....	1	.....	.....	.....
Canon Reliance Coal Co.	726	2	.....	.....	9,892	107	.....	.....	2	.....	.....	.....
Caprock Coal Co.	450	1	.....	.....	818	17	.....	.....	3	.....	.....	.....
Carbon Creek Coal Co.	7,392	11	.....	.....	200	1	.....	.....	.....	.....	.....	.....
Carestia, Paul	.....	.....	.....	6	5,721	7	.....	.....	3	.....	.....	.....
Castle Coal Mining Corp.	1,236	2	.....	.....	659	2	.....	.....	.....	.....	.....	.....
Castle Rock Coal Co.	1,486	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Castileman, Walter	100	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Chay, Louis	130	1	.....	1	260	1	.....	.....	.....	.....	.....	.....
Chergo, Tom	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Chicory, John	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Church & Schlegel	123	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Christy Coal Co.	2,135	4	.....	1	873	3	.....	.....	.....	.....	.....	.....
Clarke Coal Co.	322	3	.....	.....	2,452	3	.....	.....	.....	.....	.....	.....

Clayton Coal Co.	206,337	2,62	.....	42	217,079	273	1	40
Cline, Donald M.	418	1	.....	.....	297	3	.....	.....
Close, Frank	649	2	.....	.....	162	1	.....	.....
Coal Gulch Coal Co.	54	1	.....	.....	37	1	.....	.....
Colona Coal Co.	54	1	.....	.....	.....	.....	.....	.....
Colorado Fuel & Iron Co.	760,006	1,140	1	80	797,944	1,083	1	118
Colorado Pinnacle Coal Co.	74	2	.....	.....	.....	.....	.....	.....
Colorado Springs Co.	38,856	60	.....	6	34,765	63	.....	10
Colorado & Utah Coal Co.	111,825	129	1	32	102,173	148	.....	42
Community Coal Co.	.....	.....	.....	.....	389	1	.....	.....
Consolidated Coal & Coke Co.	99,451	112	4	84,622	106	9	.....	.....
Converse Coal Co.	509	1	.....	.....	.....	.....	.....	.....
Cook, O. C.	181	2	.....	.....	.....	.....	.....	.....
Corley Coal Co.	25,556	37	13	14,386	32	6	.....	.....
Cortez Coal Co.	.....	.....	.....	484	2	.....	.....	.....
Coryell, Frank	.....	.....	.....	.....	8,382	8	.....	.....
Cox, T. L.	218	1	.....	.....	190	1	.....	.....
Cregger, W. M.	279	3	.....	.....	.....	.....	.....	.....
Crested Butte Coal Co.	30,093	28	1	3	29,998	34	6	7
Cribbs, E. B.	.....	.....	.....	.....	13,163	62	.....	.....
Cribbs, J. D.	22,661	44	11	.....	.....	.....	.....	.....
Cuckoo Coal Co.	160	2	.....	.....	.....	.....	.....	.....
Daisy Coal Co.	1,524	3	.....	.....	1,843	3	.....	.....
Danville Coal Co.	1,382	4	.....	.....	2,289	3	.....	.....
De Bay, Frank	614	1	.....	.....	351	1	.....	.....
Delrosso Coal Co.	12,901	27	3	9,497	24	3	.....	.....
Deertrail Coal Co.	180	2	.....	.....	.....	.....	.....	.....
Denny Coal Co.	380	4	.....	.....	213	2	.....	.....
Diamond Coal Co.	399	2	.....	.....	.....	.....	.....	.....
Dick Coal Co.	15,238	24	1	16,697	26	1	.....	.....
Diehl, Peter	.....	.....	.....	.....	.....	.....	.....	.....
Di Giacomo Coal Co.	10,539	60	5	.....	9,367	14	3	.....
Domestic Coal Co.	100	3	.....	.....	4	19,949	26	10
Double Dick Coal Co.	8,184	14	5	.....	673	2	.....	.....
Drennan Coal Co.	6,992	45	4	.....	.....	.....	.....	.....
Dufur, Xavier	603	2	.....	.....	159	1	.....	.....
Durango Coal Co.	446	1	.....	.....	1,421	4	.....	.....
Eagle Coal Co.	1,038	4	.....	.....	3,083	4	.....	.....

*No production.

TABLE A—1933-1934—Continued

COMPANIES	Total Production, 1933		Total Production, 1934		No. of Men Employed, 1933	No. of Men Employed, 1934	Number of Fatal Acci- dents, 1933	Number of Fatal Acci- dents, 1934	No. of Non- Fatal Acci- dents, 1933	No. of Non- Fatal Acci- dents, 1934
	No. of Men Employed, 1933	No. of Men Employed, 1934	Total Production, 1933	Total Production, 1934						
Elders Coal Co.	348	2	.....	332	2	.....	.....	.....	.....	.....
Eldorado Coal Co.	5,888	8	.....	7,340	10	.....	1	.....	.....	.....
Electric Coal Co.	1,940	3	.....	1,502	3	.....	.....	.....	.....	.....
Elledge, Frank	186	2	.....	203	2	.....	.....	.....	.....	.....
Empire Coal Mining Co.	21,171	51	.....	27,896	54	.....	1	.....	.....	.....
Estes Bros.	195	2	.....	733	2	.....	.....	.....	.....	.....
Estes, Ora	141	1	.....	334	2	.....	.....	.....	.....	.....
Fairfield, C. F.	1,587	4	.....	.....	.....	.....	.....	.....	.....	.....
Farmers Mutual Coal Co.	2,807	7	.....	809	2	.....	.....	.....	.....	.....
Fawn Hollow Coal Co. ....	.....	1	.....	4,090	12	.....	1	.....	.....	.....
Fishers Peak Coal Co.	242	1	.....	.....	.....	.....	.....	.....	.....	.....
Florence Coal Co.	1,385	4	.....	1,309	3	.....	3	.....	.....	.....
Fondis Coal Co.	237	1	.....	270	1	.....	1	.....	.....	.....
Foreman, Thos. D.	799	1	.....	562	1	.....	.....	.....	.....	.....
Foster Bros.	160	1	.....	.....	.....	.....	.....	.....	.....	.....
Frederzzi, Dan ....	.....	.....	.....	191	2	.....	.....	.....	.....	.....
Fremont Canon Coal Co.	2,289	6	.....	2,619	18	.....	3	.....	.....	.....
Frisco Coal Co. ....	.....	.....	.....	2,014	5	.....	.....	.....	.....	.....
Frodsham, Vincent ....	.....	2	.....	959	2	.....	.....	.....	.....	.....
Fruth & Micheletti.	390	2	.....	673	2	.....	.....	.....	.....	.....
Gallegos, Gerio ....	.....	.....	.....	250	2	.....	.....	.....	.....	.....
Garcia, Benito	300	1	.....	150	1	.....	.....	.....	.....	.....
Garfield Coal Co.	4,772	8	.....	3,204	9	.....	.....	.....	.....	.....
Garvey Coal Co. ....	.....	.....	.....	640	2	.....	.....	.....	.....	.....
Gearhart, Ballard	7,849	8	.....	6,646	8	.....	.....	.....	.....	.....
Gelwick Coal Co.	527	2	.....	81	1	.....	.....	.....	.....	.....
Gem Coal Co.	2,314	6	.....	1,635	4	.....	1	.....	1	.....
George, Sam & Sons	1,425	7	.....	837	4	.....	1	.....	1	.....
Gilson Asphaltum Co.	6,923	8	.....	6,670	10	.....	1	.....	1	.....

Giordino Coal Co.	785	2	1,306	5	1
Giuliano & Carpine	22,616	57	22,433	28	2
Gorbellia, Dominick	816	2	1,310	2	
Gordon Coal Co.	36,263	54	43,266	68	4
Grasso, Nuncio	294	2			
Gray, L. J.	167	1	310	1	
Green, Thomas	435	1	141	1	
Green Valley Coal Co.	4,997	5	3,764	5	
Greenwood, Geo. A.	842	1			
Griffiths Coal Co.	8,361	14	5,868	11	2
Hackman Coal Co.	2,278	4	2,037	3	
Hardman & Sons	528	1	420	2	
Harrington, A. L.	121	1			
Harris, Jas. and Associates			11,178	16	2
Hart, G. G. & Son	788	3	602	1	
Hayden Coal Co.	69,894	104	90,603	121	13
Hayden Valley Mutual Coal Co.	1,308	2	941	2	
Henderson, J. B.			112	3	
Hernandez, J. D.	152	2			
Hillatt, W. A.	922	2			
Hi-Carbon Coal Co.			4,852	13	
Hice Coal Co.	527	2	395	2	
Hidden Treasure Coal Co.	2,121	5	4		
High View Coal Co.	4,462	6	1,007	2	
Holder, W. L.	156	1	6,731	8	
Hollingsworth, John			100	1	
Home Fuel & Supply Co.	2,616	5			
Hopper, A. P.	150	2	2,855	4	
Horace Anthracite Co.			3,947	15	
Horton Coal Co.	196	1	154	1	
Huerfano Coal Co.	50,047	142	9	46,182	122
Hughes & McCann	1,674	3			9
Hunt, W. M.	1,017	2	263	2	
Hunter, J. B.	887	2			
Hunziker & Mann	847	3			
Ideal Coal Co.					
Imperial Coal Co.	380	2		299	2
Ince, Bud	118,872	119	15	121,776	123
Independent Coal Co.	60	1		966	3
James Bros.	1,397	3		880	2
	450	2			

TABLE A—1933-1934—Continued

COMPANIES	Total Production, 1933	No. of Men Employed, 1933	No. of Non-Fatal Accidents, 1933	Total Production, 1934	No. of Men Employed, 1934	No. of Non-Fatal Accidents, 1934	No. of Fatal Accidents, 1933
Jefferson Coal Co.	2,294	11	2	8,173	9	7	7
Jeffries Fuel Co.	6,024	9	7	2,898	12	1	1
Jewell Collieries Corp.	26,983	40	2	19,776	50	5	5
Jones Coal Co.	148	2		342	2		
Jones & Tractor Co.	30	2		79	2		
Jones, Walter L.	612	2		373	2		
Jordan, Guy	22,828	34	3	21,705	35	1	1
Juanita Coal & Coke Co.				51	2		
Kanawha Creek Co-op. Coal Association				382	1		
Kennedy, H. A.	353	2					
Kerr Coal Co.				22,748	41		
Keystone Coal Co.	38,430	63	9	33,368	62	6	6
King & Mitchell	738	2		911	2		
Knez, Joe	1,695	2		1,232	2		
Kovak & Skoda	2,172	2					
Ko-Z Coal Co.	5,478	9		5,836	11	1	1
Kurie Coal Co.	921	6					
Kurtz, Oren	76	2		263	1		
Lamm, Calude				2,201	4	2	2
La. Salle Coal Co.							
Leader Coal Co.	1,399	5					
Le Donne, James	1,108	3		1,877	4		
Leonard, M. F.	1,103	1		185	1		
Leyden Lignite Co.	121,260	98		117,783	113	2	22
Liberty Coal Co.	1,243	3		999	2	1	1
Liley Coal & Land Co.	48,327	43	3	42,259	42	8	8
Lilyard Coal Co.	350	2					
Lippis, John				308	6		
Little Pinnacle Coal Co.	860	2		421	2		

Littleton Valley Coal Co.	7,067	22	3	12	2,871	30	5
Llewellyn Coal Co.	677	2			929	3	
Lloyd & Chappella	79	2					
Lone Pine Coal Co.					1,209	3	
Louisville-Lafayette Coal Co.	84,889	114	1	25	79,851	115	22
Lowe Coal Co.	1,640	5			1,208	5	
Lucia, B. C.					176	2	
McBroom, Chas.	47	1			37	1	
McDonald, W. G.	8,473	12		4	13,090	11	1
McFarlin, Joe.	160	1					
McGinley, Wm.							
McNatt, J. Q.	1,699	2			1,659	2	1
McNeil Coal Corp.	3,124	6			674	3	1
McPherson, Guy M.	128,407	169	1	22	89,662	91	14
Major Coal Co.	113	4			438	93	
Major Coal Co.	3,177	14		1	5,935	9	5
Mancos Coal Co.	235	2			972	2	
Mancos Hill Coal Co.	1,309	4	1		1,950	6	
Marinelli Bros.	348	2			138	2	
Marriott, Wm.	150	1			162	1	
Marsh, Walter.					435	1	
Martin Coal Co.					2,519	4	
Martinez, Ralph.					190		
Martorano & Son.	263	2			433	2	
Mascot Coal, Oil & Clay Co.	342				508	2	
Mattivi, Steve, & Sons	1,088	2		1	1,639	12	
Mesa County Coal Co.							
Micheli, Pio.	294	2			633	3	
Midnight Coal Co.	12,056	27		9	13,471	23	2
Midwest Red Glow Coal Co.					471	3	
Minnequa Fuel Co.	1,531	5		1	1,778	5	
Moffat Coal Co.	17,612	28			8,090	29	1
Monroe Coal Co.							
Morgan, Wm.	93,387	167	1	28	97,984	182	10
Morris, Geo. W.	10,211	15	1		12,324	20	3
Moschetti, Tony	120	6			557	2	
Mt. Carbon Coal Co.	775	2					
Mt. Lincoln Coal Co.	361	7					
Mundell, J. W.							2
Murrell, Jas.	90	3			3,369	10	
	780	3			1,150	2	
	667	3			1,041	2	
					551	2	

TABLE A—1933-1934—Continued

COMPANIES	1933		1934		No. of Men Employed, 1933	No. of Men Employed, 1934	Total Production, 1933	No. of Non- Fatal Acci- dents, 1933	No. of Non- Fatal Acci- dents, 1934	Total Production, 1934	No. of Men Employed, 1933	No. of Non- Fatal Acci- dents, 1933	No. of Non- Fatal Acci- dents, 1934
	Total Production, 1933	No. of Men Employed, 1933	Total Production, 1934	No. of Men Employed, 1934									
National Fuel Co.	253,111	279	176,927	293	40	3	176,927	293	29	29	3	29	29
Neish, W. K.	6,613	21	5,741	33	—	—	6,623	33	—	—	—	—	—
Niggerhead Mining Co.	—	—	—	—	—	—	—	—	—	—	—	—	—
Northern Coal Co.	—	—	—	—	—	—	—	—	—	—	—	—	—
North Park Coal Co.	26,105	26	22,748	33	1	3	22,748	33	6	6	—	—	—
Nossaman, W. J.	164	1	—	—	—	—	—	—	—	—	—	—	—
Oberding, Wm. J.	208	1	250	2	—	—	208	1	—	—	—	—	—
Ohio Creek Coal Co.	1,163	4	1,209	3	—	—	1,163	4	—	—	—	—	—
O. K. Coal Co.	3,208	10	3,467	8	—	—	3,208	10	—	—	—	—	—
Oliver Coal Co.	49,528	54	50,837	55	4	4	49,528	54	6	6	—	—	—
Orecchio Coal Co.	5,756	13	—	—	2	—	5,756	13	—	—	—	—	—
Oreycamp, Walter	354	3	—	—	—	—	354	3	—	—	—	—	—
Owen, W. H.	608	2	685	2	—	—	608	2	—	—	—	—	—
Painton, F. D.	776	2	—	—	—	—	776	2	—	—	—	—	—
Palisade Coal Co.	4,707	10	5,090	16	2	2	4,707	10	2	2	16	16	2
Paonia Farmers Coal Co.	1,667	2	2,179	2	—	—	1,667	2	—	—	—	—	—
Paramount Coal Co.	517	4	1,839	4	—	—	517	4	—	—	—	—	—
Pattison Coal & Oil Co.	697	1	—	—	—	—	697	1	—	—	—	—	—
Peachey Coal Co.	17,504	46	14,431	37	2	2	17,504	46	2	2	37	37	2
Peacock Coal Co.	801	3	598	2	—	—	801	3	—	—	2	2	—
Peerless Coal Co. (Boulder)	5,907	7	—	—	6	—	5,907	7	6	—	—	—	—
Peerless Coal Co. (La Plata)	834	2	731	2	—	—	834	2	—	—	2	2	2
Perino Coal Co.	1,200	6	2,098	4	—	—	1,200	6	—	—	4	4	—
Petry, Sam	3,055	6	1,850	6	—	—	3,055	6	—	—	6	6	—
Phelan & Shaver	635	2	1,209	2	—	—	635	2	—	—	2	2	—
Phoenix Fuel Co.	6,613	43	4,076	44	2	2	6,613	43	2	2	44	44	—
Pickett, L. W.	825	2	208,677	162	1	27	825	2	1	27	162	162	2
Pikes Peak Fuel Co.	206,710	161	208,677	162	—	—	206,710	161	—	—	2	2	30

Pine River Coal Co.....	136	1	240	1
Pinnacle-Kennemer Fuel Co.....	18,485	38	2,825	35
Pittsburgh Coal Co.....	1,161	3	1,350	4
Placita Mine Leasing Co.....	3,503	8	1,093	2
Pluto Coal Co.....	1		13,006	15
Pollard, C. F.....	1,981	2		
Pollo, John, Jr.....	372	2	1,813	2
Premier Coal Co.....			306	1
Pritchard, F. J.....			1,250	4
Prosperity Coal Co.....	373	2	231	2
P. & T. Coal Co.....	1,055	3		
Pryor Coal Mining Co.....	27,457	78	505	3
Rainbow Coal Co.....			26,221	71
Ranson Coal Co.....	1,093	3	250	3
Rasmussen, H. J.....	650	1	1,906	4
Rauman Coal Co.....			1,251	1
Ream, W. A.; Coal Co.....	860	3	588	2
Red Arrow Coal Co.....	10,826	27	2,761	46
Red Ash Coal Co.....	3,112	4	2,609	16
Red Canon Coal Co.....	3,169	4	8,570	14
Reinau, R. C.....	1,007	2	2,966	4
Rice, Arthur.....	212	1	878	2
Richards, C. H.....	114	1	233	1
Richardson Coal Co.....	1,894	4		
Rifle Coal Mines, Inc.....	878	2		
Riggio, Nick.....			1,104	3
Riges, E. G.....	632	2	1,501	5
Riverside Coal Co.....	2,138	5	1,955	3
Rocchio Coal Co.....	1,692	6	8,346	13
Rock Creek Coal Co.....			131	
Rockdale Canon Coal Co.....			505,718	644
Rocky Mountain Fuel Co.....			421	1
Roggero, Joe.....	569,207	698		
Rolfe, Geo. T.....	4,558	2	248	4
Rollins Fuel Co.....	6,907	7	4,758	6
Ross Coal Co.....	427	1	402	1
Rout County Mining Co.....	3,869	6	3,524	8
Royal Gorge Coal Co.....	2,226	12	4,194	7
Russell, W. E., Coal Co.....	1,046	11	7,363	18
	96,033	74	103,702	78
			14	11

TABLE A-1933-1934—Continued

COMPANIES	Total Production, 1933		Total Production, 1934	
	No. of Men Employed, 1933	No. of Men Employed, 1934	No. of Non-Fatal Accidents, 1933	No. of Non-Fatal Accidents, 1934
Gadvar, Mathew	100	122	1	2
El Salvador Coal Co.	89	111	2	2
Sanchez, Demetro	66	1	0.041	4
Santa Fe Coal Co.	985	4		
Sanctillo Coal Co.	42	2		
Shamrock Coal Co. (Huertano)	73,764	87	12	12
Shea, D. F.	45	1		
Shefton, H. D.			30	3
Slagle, E. G.			377	2
Flama, John				
Sloan, J. D.				
South Canon Mine Leasing Co.			1	1
Sowers Coal Co.	2,441	1,4		
Spencer, Geo. S.	1,104	8		
Spring Canon Coal Co.	762	2		
Stakish, Geo.				
Standard Coal Co.			152	1
States Hall Coal Co.	152	7		
Steel, Geo., & Co.	3,048	47	2	2
Stokes, W. D.			1,770	4
Strawberry Coal Co.	2,836	4		
Strawberry Coal Co.	800	3		
Sunrise Coal Co.			900	4
Sunshine Coal Co.			2,421	3
Superior Fuel Co.			946	3
Swiglo, J. F.			892	3
Temple Fuel Co.			67,206	135
Thomas Coal Co.			1,182	19
				19
				1
				109
				1,661
				11

Thomas Mining Co.	16,711	24	5	11,929	22	2
Thor Fuel Co.	6,810	36	5	5,592	16	
Thibotsch, Frank	382	1		534	2	
Torril Coal Co.	4,474	7	5	7,144	13	7
Triangle Coal Co.	1,636	2	1	7,763	1	
Trinidad Coal Co.	162	2				
Trinidad Supply Coal Co.	245	2		493	2	
Tri-State Coal Association	255	4	1	773	4	
Trujillo, L.				250	3	
Tucker, A. D.	261	2				
Ulce Coal Association	153	2				
Unity Coal Co.	11,135	23	9			
Valley Coal Co.	261	2				
Valley View Coal Co.	977	2		1,100	2	
Van Winkle Coal Co.	932	11		2,372	4	
Vickers Coal Co.	58,007	87	1	41,740	89	6
Victor-American Fuel Co.	346,051	740	1	380,878	746	136
Visage, A. F.				114	2	
Vowell, T.	150	2		40	1	
Waugh, Wm.				786	2	
Webber, J. E.	206	2				
Webberkirch, Kaspar	25	1				
West, Eugene, Coal Co.	226	2		689	2	
Western Star Coal Co.	1,463	2		276	1	
White Ash Coal Co.	1,879	4		1,213	3	
White Rose Coal Co.	300	2				
Whitlock, E. E.	93	1				
Whit, Wade.				366	1	
Wild Cat Leasing Co.				4,467	7	
Willden Coal Co.	922	2		4,791	2	3
Williams Coal Co.	1,420	3				
Wilton, W. G.				1,067	3	
Winton Coal Co.	3,583	3		2,03	2	
Wisconsin Coal Co.	216	1		2,343	3	
Woods & Black.	155	3		81	1	
Worthington, Joe						
Yingling, Chas.	381	1		400	1	
Zieseniss, Henry	899	2		562	1	
Zimmerman, E. H.				958	2	
Totals.....	5,284,872	8,179	20	1,042	5,251,003	21
					8,138	963

TABLE B.
NUMBER INJURED IN COAL MINES DURING THE CALENDAR YEARS ENDING DECEMBER 31, 1931-1934

CAUSES	Permanent Total Disability		Permanent Partial Disability		Temporary Disability		Temporary Disability		Total Injuries			
	1931	1932	1933	1934	1931	1932	1933	1934	1931	1932	1933	1934
Underground:												
1. Falls of roof (coal, rock, etc.)	1	1	1	1	165	127	130	72	59	43	38	174
2. Falls of face or pillar coal	1	1	3	3	199	70	154	40	58	47	33	188
3. Mine cars and locomotives	1	1	1	1	162	130	150	139	84	60	44	129
4. Gas explosions and burning gas	1	1	1	1	1	1	1	1	1	1	1	233
5. Coal-dust explosions (including gas and dust, combined)	1	1	1	1	1	1	1	1	1	1	1	215
6. Explosives	1	1	1	1	6	2	3	2	1	1	1	5
7. Suffocation from mine gas	1	1	1	1	1	1	1	1	1	1	1	1
8. Electricity	1	1	1	1	1	1	1	1	1	1	1	1
9. Animals	1	1	1	1	15	9	16	12	18	10	12	18
10. Mining machines	1	1	1	1	65	46	54	45	28	27	16	19
11. Mines fires (burned, suffocated, etc.)	1	1	1	1	2	195	183	160	170	184	170	118
12. Other causes	1	1	1	1	1	1	1	1	1	1	1	1
In Shaft:												
13. Falling down shafts or slopes	1	1	1	1	1	1	1	1	1	1	1	1
14. Objects falling down shafts or slopes	1	1	1	1	1	1	1	1	1	1	1	1
15. Cages or skips	1	1	1	1	1	1	1	1	1	1	1	1
16. Other causes	1	1	1	1	1	1	1	1	1	1	1	1
Total number injured in mine												
1	9	7	11	6	708	586	573	589	418	422	371	266
On Surface:												
17. Mine cars and mine locomotives	1	1	1	1	6	7	6	12	2	7	6	13
18. Electricity	1	1	1	1	1	1	1	1	1	1	1	1
19. Machinery	1	1	1	1	13	16	17	20	8	9	3	22
20. Boiler explosions or bursting steam pipes	1	1	1	1	2	1	1	1	1	1	2	2
21. Railway cars and locomotives	1	1	1	1	2	1	1	1	1	1	1	3
22. Other causes	1	1	1	1	26	16	21	36	30	14	25	58
Total number injured on the surface												
1	4	1	1	1	49	41	44	71	49	26	43	30
Grand Total												
1	13	8	11	6	757	627	617	660	467	448	414	296
												1,238
												1,083
												1,042
												962

A. PERMANENT TOTAL DISABILITY. Loss of both legs or arms, one leg and one arm, total loss of eyesight, paralysis or other condition permanently incapacitating workman from doing any work of a gainful occupation.

B. PERMANENT PARTIAL DISABILITY. Loss of one foot, leg, hand, eye, one or more fingers, one or more toes, and dislocation where ligaments are severed, or any other injury known in surgery to be permanent partial disability.

C. In this column include only accidents which cause a loss of time more than the balance of the day or shift upon which the accident occurred.

TABLE C.
MINE FATALITIES BY CAUSES, 1931-1934

CAUSES	Years			
	1931	1932	1933	1934
Underground:				
1. Falls of roof (coal, rock, etc.).....	4	8	7	8
2. Falls of face or pillar coal.....	5	4	3	5
3. Mine cars and locomotives.....	9	9	3	2
4. Gas explosions and burning gas.....	...	1	...	...
5. Coal-dust explosions (including gas and dust combined)	1	...	...	...
6. Explosives .....	...	1	...	...
7. Suffocation from mine gases.....	...	2	2	1
8. Electricity (shock or burns).....	...	1	2	3
9. Animals .....	...	1	...	...
10. Mining machines.....	...	...	...	...
11. Mine fires (burned, suffocated, etc.).....	...	...	...	...
12. Other causes .....	...	...	...	1
Shaft:				
13. Falling down shafts or slopes.....	...	1	...	...
14. Objects falling down shafts or slopes.....	...	...	...	...
15. Cages or skips.....	...	...	...	...
16. Other causes .....	...	...	...	...
Total underground.....	19	28	17	20
Surface:				
17. Mine cars and mine locomotives.....	...	...	...	...
18. Electricity (shock or burns).....	...	...	...	...
19. Machinery	2	...	1	1
20. Boiler explosions or bursting steam pipes.....	...	...	...	...
21. Railway cars and locomotives.....	...	...	...	...
22. Other causes .....	...	1	2	...
Total	2	1	3	1
Grand total	22	29	20	21

TABLE D—1931.

SHOWING BY COUNTIES, MINES OPERATED, NAME OF OPERATOR AND ADDRESS OF MINE, CHARACTER OF COAL, NUMBER OF DAYS WORKED, AVERAGE NUMBER OF MEN EMPLOYED, TOTAL NUMBER OF TONS OF COAL PRODUCED IN 1931 AND CAPACITY OF MINE PER DAY IN TONS.

ARCHULETA COUNTY

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Average Number of Days Worked	Total Number of Tons Produced	Capacity of Mine per Day, Tons
				Employee Men	Employee Men	Employee Men
Cox.....	T. L. Cox.....	Pagosa Springs.....	Bituminous.....	94	487	.....
Bellino & Antonita.....		Pagosa Junction.....	Sub-bituminous.....	150	2	344
McBroom.....	Chas. McBroom.....	Dyke.....	Bituminous.....	53	1	130
Francis.....	Payan Bros.....	Arboles.....	Bituminous.....	65	1	79
Montezuma Sun.....	Leon Archuleta.....	Pagosa Springs.....	Bituminous.....	20	2	35
Fitzgerald.....	A. L. Harrington.....	Arboles.....	Bituminous.....	15	1	31
Number of Mines operated: 6.....				63.8	8	1,106

BOULDER COUNTY

Industrial.....	Rocky Mountain Fuel Co.....	Superior.....	Sub-bituminous.....	167.2	165	119,020
Vulcan.....	Rocky Mountain Fuel Co.....	Lafayette.....	Sub-bituminous.....	237.3	72	59,188
Standard.....	Rocky Mountain Fuel Co.....	Lafayette.....	Sub-bituminous.....	148.3	41	38,941
Monarch No. 2.....	National Fuel Co.....	Broomfield.....	Sub-bituminous.....	289.9	114	113,695
Crown.....	David Allan.....	Gorham.....	Sub-bituminous.....	261	57	67,412
Hi-Way.....	Broomfield.....		Sub-bituminous.....	238.2	58	55,434
Black Diamond.....	Boulder.....		Sub-bituminous.....	133	18	11,315
Black Diamond No. 2.....	Lafayette.....		Sub-bituminous.....	122	27	9,837
Centennial.....	Louisville.....		Sub-bituminous.....	58	42	9,833
High View.....	Gorham.....		Sub-bituminous.....	228	7	5,564
Pluto.....	Boulder.....		Sub-bituminous.....	129	4	3,874
Sunrise.....	Gorham.....		Sub-bituminous.....	121	15	1,850

BOULDER COUNTY—Continued

Pittsburgh.....	Pittsburgh Coal Co.	Gorham.....	Sub-bituminous.....	133	2	1,028	10
New Ross.....	New Ross Coal Co.	Gorham.....	Sub-bituminous.....	117	4	868	10
Gorham No. 2.....	Eldorado Coal Co.	Gorham.....	Sub-bituminous.....	56	4	592	20
Peerless.....	Gilmour Coal Co.	Gorham.....	Sub-bituminous.....	45	15	297	15
Pine Cliff.....	Tom Gabriele.	Gorham.....	Sub-bituminous.....	27	3	203	10
Flireside.....	KOZ Coal M. Co.	Louisville.....	Sub-bituminous.....	30	6	182	6
Number of Mines operated : 18				190.2	654	499,133	—

DELTA COUNTY

King.....	Juanita Coal & Coke Co.	Bowie.....	Bituminous.....	54	44	33,597	1,000
Green Valley.....	Green Valley Coal Co.	Cedaredge.....	Semi-bituminous.....	289	6	6,444	—
Red Canon.....	Red Canon Coal Co.	Cedaredge.	Semi-bituminous.....	260.9	5	5,134	50
Paonia.....	Paonia Farmers Coal Co.	Paonia.....	Semi-bituminous.....	171	3	3,298	—
Independent.....	Independent Coal Co.	Cedaredge.	Semi-bituminous.....	230	3	2,580	35
States.....	States-Hall Coal Co.	Cedaredge.....	Semi-bituminous.....	203	3	2,014	50
Red Mountain.....	States-Hall Coal Co.	Cedaredge.....	Semi-bituminous.....	240	4	1,717	40
Owens.....	R. Owens & Sons.	Cedaredge.....	Semi-bituminous.....	200	3	1,641	2
Winton.....	Winton Coal Co.	Hotchkiss.....	Bituminous.....	120	3	896	15
Gelwick.....	Gelwick Coal Co.	Hotchkiss.....	Bituminous.....	241	2	821	4
Burdick.....	Burdick Coal Co.	Hotchkiss.....	Bituminous.....	200	3	545	12
Fitzsimmons.....	E. A. Fitzsimmons.	Paonia.....	Semi-bituminous.....	83	2	499	2
Western Star.....	Western Star Mine Co.	Cedaredge.....	Semi-bituminous.....	70	4	461	—
Bennett.....	W. D. Bennett.	Paonia.....	Semi-bituminous.....	110	2	280	—
Leroux Creek.....	T. M. Vowell.	Lazear.....	Semi-bituminous.....	90	2	200	5
Converse.....	Converse Coal Co.	Paonia.....	Semi-bituminous.....	54	1	185	25
Number of Mines operated : 16.				123.6	90	60,202	—

ELBERT COUNTY

Mascot.....	Mascot Coal, O. & C. P. Co.	Matheson.....	Sub-bituminous.....	171	5	1,589	100
Wright.....	Wright Bunker.	Matheson.....	Sub-bituminous.....	180	2	1,547	60
Number of Mines operated : 2.				173.6	7	3,136	—

TABLE D—1931—Continued.
EL PASO COUNTY

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Total Number of Days Worked		Average Men Employed	No. of Tons Produced	Capacity of Mine per Day, Tons
				No. of Days Worked	Number of Days Worked			
Pikeview	Pikes Peak Fuel Co.	Pikeview	Sub-bituminous	227	168	241,655	2,000	
City Coal Mines	Colorado Springs Co.	Colorado Springs	Sub-bituminous	226	66	46,092	600	
Corley	Corley Coal Co.	Colorado Springs	Sub-bituminous	257	31	26,843	300	
Kurie	Kurie Coal Co.	Colorado Springs	Sub-bituminous	218	25	13,755	100	
Jimmy Camp	Thomas Mining Co.	Colorado Springs	Sub-bituminous	230	8	6,658	100	
Franceville	Franceville Fuel Co.	Colorado Springs	Sub-bituminous	169	15	5,283	100	
Climax	Danville Coal Co.	Colorado Springs	Sub-bituminous	220	4	3,506	100	
Drennan	Drennan Coal Co.	Colorado Springs	Sub-bituminous	278	3	1,694	10	
Golden Dawn	Golden Dawn Coal Co.	Yoder	Sub-bituminous	248	2	612	5	
Number of Mines operated: 9				226	4	—	—	
				226	4	321	345,978	

FREMONT COUNTY

Chandler	Victor-American Fuel Co.	Bituminous	157	297	129,008	1,000	
Rockvale No. 2	John D. Cribbs (Lessee)	Bituminous	84	182	29,305	800	
Rockvale No. 3	Colorado Fuel & Iron Co.	Bituminous	240	5	40,786	250	
Canon (Wolf Park)	Canon-Reliance Coal Co.	Bituminous	104	36	39,894	600	
Double Dick	Double Dick Coal Co.	Bituminous	266	41	21,638	125	
Bluff Springs No. 2	Bluff Springs Leasing Co.	Bituminous	211	33	14,539	—	
Griffiths	Griffiths Coal Co.	Bituminous	269	16	13,973	90	
Canon Imperial	Canon Imperial Coal Co.	Bituminous	217	26	9,368	—	
South Magnet	Canon Quality Coal Co.	Bituminous	225	27	9,442	100	
Brookside	Orecchio Coal M. Co. ...	Bituminous	255.5	13	8,063	30	
Cuckoo	Delisa, Canon Coal Co.	Bituminous	220	18	7,090	15	
Rocchio	Rocchio Coal Co.	Bituminous	238	11	6,989	35	

FREMONT COUNTY—Continued

New Fremont.....	Giuliano Coal Co.	Coal Creek	Bituminous	217	23	5,697	20
Jack O' Lantern.....	Beer Coal Co.	Florence.....	Bituminous	217	9	3,869	30
Newlan Creek.....	Newlan Creek Coal Co.	Florence.....	Bituminous	241	8	2,340	10
Canon District.....	Lippis & Bosco.....	Canon City.....	Bituminous	74	5	1,250	20
Petry.....	Sam Petry.....	Florence.....	Bituminous	75	3	870	.....
Caldirola.....	Caldirola Coal Co.	Florence.....	Bituminous	40	9	794	32
Superior.....	H. J. Smith.....	Florence.....	Bituminous	180.5	2	733	.....
Willie No. 1.....	Willie Coal Co.	Florence.....	Bituminous	146	1	684	.....
Willie No. 2.....	James Brothers.....	Florence.....	Bituminous	140	2	600	5
North Magnet.....	Perino Coal Co.	Florence.....	Bituminous	40	4	449	10
Brewster.....	Allan Beach & Associates.....	Florence.....	Bituminous	55	2	275	.....
	Number of Mines operated : 23.....			157.1	854	347,356	.....

GARFIELD COUNTY

South Canon.....	Glenwood Springs	Bituminous	252	11	13,002	75
Carbonera.....	Carbonera via Mack	Bituminous	166	9	7,462	60
Estes.....	Rifle.....	Bituminous	247	2	1,864	.....
Zieseniss.....	Rifle.....	Bituminous	161	2	1,682	30
Rauman.....	Rifle.....	Bituminous	242	2	1,687	25
North Canon.....	Rifle Coal Mines, Inc.	Bituminous	184	2	1,413	20
Silt.....	Morgan Coal Co.	Bituminous	185.5	3	1,242	10
Ohkrat.....	Frank De Boy.....	Bituminous	166	2	863	.....
Harvey Gap.....	James La. Donne.....	Bituminous	200	3	500	6
McLearn.....	Crumpley & Sons	Rifle.....	62	2	339	10
Paradise.....	Angelo Bellodi.....	Rifle.....	107	1	260	.....
Earnest.....	Kenneth Gardner.....	Carbondale	60	3	208	10
Prospect.....	R. Knapp.....	Glenwood Springs	45	2	45	.....
	Number of Mines operated : 13.....		180	44	30,447	.....

TABLE D—1931—Continued.
GUINNISON COUNTY

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Average Men Employed	No. of Men Worked	Number of Days Worked	Total Number of Tons Produced	Mine per Day, Tons	Capacity of Day, Tons
Somerset.....	Calumet Fuel Co.....	Somerset.....	Bituminous.....	185	109	153,924	1,200	1,270,035	1,400
Crested Butte.....	Colorado Fuel & Iron Co.....	Crested Butte.....	Bituminous.....	145	183	36,232	500	36,232	500
Oliver.....	Oliver Coal Co.....	Somerset.....	Semi-anthracite.....	94	54	28,299	350	28,299	350
Alpine.....	Rocky Mountain Fuel Co.....	Baldwin.....	Semi-bituminous.....	93	55	26,785	500	26,785	500
Bulky No. 2.....	Crested Butte Coal Co.....	Crested Butte.....	Bituminous.....	..	..	..	..	..	..
Horace.....	Horace Anthracite Co.....	Crested Butte.....	Anthracite.....	110,3	67	24,761	300	4,162	500
Ohio Creek.....	Ohio Creek Coal Co.....	Gunnison.....	Bituminous.....	131	7	907	..	907	..
Richardson.....	Richardson Coal Co.....	Gunnison.....	Semi-anthracite.....	267	2	598	3	598	3
Carbon Creek.....	Carbon Creek Coal Co.....	Gunnison.....	Bituminous.....	250	1	542	..	542	..
Hawks Nest.....	Blunt & Andin.....	Somerset.....	Bituminous.....	267	2	..	..	..	..
Castle Rock.....	Castle Rock Coal Co.....	Gunnison.....	Bituminous.....	79	2	525	15	525	15
Baldwin Star.....	Baldwin Fuel Co.....	Baldwin.....	Bituminous.....	58	1	439	50	439	50
Number	of Mines operated: 12.....	..	..	126,1	528	404,209	..	..	..
HUFERFANO COUNTY									
Robinson No. 1.....	Colorado Fuel & Iron Co.....	Walsen.....	Bituminous.....	22,9	219	30,385	1,500	12,882	1,400
Robinson No. 3.....	Colorado Fuel & Iron Co.....	Walsen.....	Bituminous.....	11,6	236	..	..	..	..
Robinson No. 4.....	Colorado Fuel & Iron Co.....	Farr.....	Bituminous.....	182,6	234	240,316	1,600	139,705	850
(Cameron).....	Colorado Fuel & Iron Co.....	Tioga.....	Bituminous.....	178,9	171	..	..	95,913	1,000
Kebler No. 2.....	Colorado Fuel & Iron Co.....	Alamo.....	Bituminous.....	213	143	..	..	..	..
Alamo No. 1.....	Alamo Coal Co.....	..	..	..	..	..	..	..	..
Alamo No. 2.....	Barbour Coal Co.....	Alamo.....	Bituminous.....	155	94	69,967	1,000	12,016	150
Oakdale.....	Oakdale Coal Co.....	Oakview.....	Bituminous.....	72	31	12,016	150	79,613	1,000
Calumet No. 1.....	Calumet Fuel Co.....	DeCarbon.....	Bituminous.....	133	162	..	..	..	..
Calumet No. 2.....	Calumet Fuel Co.....	DeCarbon.....	Bituminous.....	126	179	53,284	1,000	53,284	1,000
Ravenwood.....	Caliente Coal Co.....	Ravenwood.....	Bituminous.....	127	106	37,899	400	37,899	400

HUERFANO COUNTY—Continued

Maitland.....	Maitland.....	Bituminous.....	69.5	34	14,748	200
Pryor.....	Pryor.....	Bituminous.....	118.2	82	46,484	500
Gordon.....	Gordon.....	Bituminous.....	167	58	37,145	500
Ojo Canon.....	La Veta.....	Bituminous.....	244	40	20,117	500
Mutual.....	Walsenburg.....	Bituminous.....	92	60	17,878	200
Toltec.....	Toltec.....	Bituminous.....	56.3	49	17,771	250
Sunnyside.....	Walsenburg.....	Bituminous.....	86	56	15,853	350
Torrid.....	Rugby.....	Bituminous.....	159	27	12,568	100
Vesta.....	Walsenburg.....	Bituminous.....	244	25	11,644	.....
Bunker Hill.....	Rapson.....	Bituminous.....	192	8	3,840	20
Black Hawk.....	Aguilar.....	Bituminous.....	229	5	2,067	15
George No. 1.....	La Veta.....	Bituminous.....	51	4	484	10
George No. 2.....	La Veta.....	Bituminous.....	142	6	750	8
Caddell No. 3.....	Walsenburg.....	Bituminous.....	155	4	908	10
Fruth.....	Walsenburg.....	Bituminous.....	80	9	649	.....
Caddell No. 1.....	Walsenburg.....	Bituminous.....	84	4	470	.....
San Isabel.....	La Veta.....	Bituminous.....	121	1	111	.....
Chaparral Canon.....	La Veta.....	Bituminous.....	60	1	30	.....
Number of Mines operated : 28.....	.....	.....	119.1	1,948	975,397	.....

JACKSON COUNTY

Moore No. 1 and Strip Pit.....	North Park Coal Co.....	Coalmont.....	Semi-bituminous.....	277	49	40,031	700
Marr.....	George M. Barnell.....	Walden.....	Semi-bituminous.....	210	5	4,193	600
Mitchell.....	Geo. W. Davidson.....	Walden.....	Semi-bituminous.....	30	1	74	.....
Number of Mines operated : 3.....	.....	.....	.....	248.1	55	44,298	.....

JEFFERSON COUNTY

Leyden No. 3.....	Leyden Lignite Co.....	Leyden via Golden.....	Sub-bituminous.....	243.5	82	114,825	750
Christensen (Littleton).....	Good Fuel Co.....	Littleton.....	Sub-bituminous.....	254	26	18,313	175
Blue Bird.....	Blue Bird Mine, Inc.....	Mt. Morrison.....	Sub-bituminous.....	284	10	7,176	44
Kojak.....	Kojak Mines, Inc.....	Mt. Morrison.....	Sub-bituminous.....	189	9	60	.....
Number of Mines operated : 4.....	.....	.....	.....	245	127	140,374	.....

TABLE D—1931—Continued.
LA PLATA COUNTY

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Number of Days Worked	Average Men Employed	Total Number of Men Employed	Tons per Day, Tons per Day	Capacity of Mine per Day, Tons
Castle Coal & M. Corp.		Durango	Bituminous	275	7	5,587	150	
Triangle Coal Co.		Durango	Bituminous	143	7	5,049	.....
O. K. Coal Co.		Durango	Bituminous	97	13	5,032	50	
Black Diamond Coal Co.		Durango	Bituminous	108	17	3,712	100	
Sunshine Coal Co.		Durango	Bituminous	186	3	3,538	25	
Bandino & Co.		Durango	Bituminous	153	3	2,495	16	
Valley View Coal Co.		Mancos	Bituminous	145	2	1,022	10	
Durango Coal Co.		Durango	Bituminous	139	6	931	25	
Peerless Coal Co.		Durango	Bituminous	67	4	783	.....
Chas. Yingling		Bayfield	Bituminous	157	2	771	25	
Frank Tipotsch		Hesperus	Bituminous	165	1	552	.....
Wm. Hunt		Hesperus	Bituminous	134	2	601	6	
Superior		Durango	Bituminous	87	2	393	100	
Excelsior		Bayfield	Bituminous	164	1	396	.....
Shamrock		Bayfield	Bituminous	76	1	311	.....
Pine River		Bayfield	Bituminous	107	1	316	10	
Ft. Lewis		Kline	Sub-bituminous	110	1	166	10	
Hammond		Bayfield	Sub-bituminous	90	1	114	.....
	Number of Mines operated : 18					64	31,662	
LARIMER COUNTY								
Benson	Miller Coal Co.	Carr (Star Route)	Sub-bituminous	128	7	1,222	.....
Yeasey	Reed & Maycamp	Carr	Sub-bituminous	80	3	670	6	
Pioneer	Walter Overcamp	Wellington	Sub-bituminous	60	2	72	5	
Knox	Knox Coal Co.	Carr	Sub-bituminous	20	3	50	10	
	Number of Mines operated : 4					87.4	15	1,914

STATE INSPECTOR OF COAL MINES

43

LAS ANIMAS COUNTY

Frederick.....	Colorado Fuel & Iron Co.....	Valdez.....	Bituminous.....	118.9	478	281,888	2,500
Morley.....	Colorado Fuel & Iron Co.....	Morley.....	Bituminous.....	89.1	447	188,401	1,800
Toller.....	Colorado Fuel & Iron Co.....	Tollerburg.....	Bituminous.....	50	276	67,790	1,325
Delagua.....	Victor-American Fuel Co.....	Delagua.....	Bituminous.....	185.9	351	267,106	2,000
Brothead No. 9.....	Temple Fuel Co.....	Brothead.....	Bituminous.....	199	198	114,286	700
Kenneth.....	Vickers Coal Co.....	Rugby.....	Bituminous.....	199	65	52,103	500
Boncarbo.....	American Smelting & Ref. Co.....	Cokedale.....	Bituminous.....	111	144	82,076	1,200
Bear Canon No. 6.....	Bear Canon Coal Co.....	Valloro.....	Bituminous.....	127	89	65,470	1,000
Ludlow.....	Huerfano Coal Co.....	Ludlow.....	Bituminous.....	120	177	48,895	600
Empire.....	Empire Coal M. Co.....	Aguilar.....	Bituminous.....	80.3	56	35,746	600
Creston.....	Jewel Collieries Corp.....	Aguilar.....	Bituminous.....	169	49	33,542	350
Dix.....	Dick Coal Co.....	Walsenburg.....	Bituminous.....	135	32	25,751	300
Sopris No. 1.....	Doldesso Coal Co.....	Sopris.....	Bituminous.....	158	30	21,455	150
Rapson.....	Pio Michelli.....	Rapson.....	Bituminous.....	220	32	16,541	300
Anchor.....	Phoenix Fuel Co.....	Trinidad.....	Bituminous.....	97.5	29	8,255	200
Thor.....	Thor Fuel Co.....	Trinidad.....	Bituminous.....	93.3	55	7,588	300
Jeffries.....	Jeffries Fuel Co.....	Trinidad.....	Bituminous.....	298	7	6,148	60
Bowen.....	Home Fuel & Supply Co.....	Trinidad.....	Bituminous.....	263	6	3,769	25
La Belle.....	Wm. Morgan.....	Trinidad.....	Bituminous.....	138	6	2,045	.....
Engle.....	James Wilson.....	Trinidad.....	Bituminous.....	101	4	1,514	30
Baldy.....	Baldy Coal Co.....	Trinidad.....	Bituminous.....	244.5	3	1,492	.....
Bunker Hill No. 2.....	O. C. Cook.....	Trinidad.....	Bituminous.....	59	8	1,214	.....
Pritchard.....	Chas. Pritchard.....	Trinidad.....	Bituminous.....	172	3	1,183	.....
Fishers Peak.....	Marsh Coal Co.....	Trinidad.....	Bituminous.....	167	2	871	.....
Santa Fe.....	Santa Fe Coal Co.....	Trinidad.....	Bituminous.....	83	6	829	.....
Star.....	Star Coal Co.....	Aguilar.....	Bituminous.....	200	2	681	.....
Lakeview.....	Nick Bigglo.....	Trinidad.....	Bituminous.....	125	2	687	15
David.....	David Coal Co.....	Rapson.....	Bituminous.....	142	2	668	.....
Fairview.....	W. H. Owen.....	Trinidad.....	Bituminous.....	180	2	566	10
Martinez.....	Rafael Martinez.....	Cokedale.....	Bituminous.....	267	1	519	.....
Frisco.....	Frisco Coal Co.....	Trinidad.....	Bituminous.....	96	3	385	6
Daisy.....	Daisy Coal Co.....	Aguilar.....	Bituminous.....	69	3	377	.....
Ferrill.....	J. A. Hollingsworth.....	Trinidad.....	Bituminous.....	176	2	369	4
Timber Canon.....	O. C. Cook.....	Trinidad.....	Bituminous.....	53	7	354	.....
Standard.....	Standard Coal Co.....	Trinidad.....	Bituminous.....	125	3	350	.....

TABLE D—1931—Continued.
LAS ANIMAS COUNTY—Continued

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Capacity of Mine per Day, Tons			
				Total Num- ber of Tons	Produced by Total Num- ber of Men	Average No. of Men Employed	Capacity of Mine per Day, Tons
Blue Blaze.....	Blue Blaze Coal Co.....	Trinidad.....	Bituminous.....	172	3	299	20
Little Mary.....	.....	Trinidad.....	Bituminous.....	200	3	260	.....
New Congo.....	Cash & Carry Coal Co.....	Aguilar.....	Bituminous.....	90	2	200	10
Hill Top.....	Trinidad Coal Co.....	Cokedale.....	Bituminous.....	170	3	184	.....
Wiley.....	Flidritz, McDonald & Miller.....	Trinidad.....	Bituminous.....	99	2	131	4
Rudy.....	Rudy Coal Co.....	Cokedale.....	Bituminous.....	56	2	119	.....
Forbes.....	W. E. Riggs.....	Trinidad.....	Bituminous.....	74	3	112	10
Fraig.....	Joe Rogorio.....	Trinidad.....	Bituminous.....	20	2	110	10
Medina.....	Pete Medina.....	Weston.....	Bituminous.....	40	2	80	3
Madrid.....	A. Santisieran.....	Cokedale.....	Bituminous.....	20	2	20	.....
Beshoar.....	Joerger Coal Co.....	Trinidad.....	Bituminous.....	200	2	850	20
Vigil.....	Vigil Fuel Co.....	Segundo.....	Bituminous.....	35	2	87	.....
Pickford.....	Boaglio Coal Co.....	Trinidad.....	Bituminous.....	230	2	650	3
Number of Mines operated: 48				125.6	2,650	.....	1,333,999
MESA COUNTY							
Cameo.....	McNeill Coal Corp.....	Cameo.....	Semi-bituminous.....	128	50	44,386	600
Palisade.....	Palisade Coal Lease Co.....	Palisade.....	Semi-bituminous.....	220	16	8,713	200
Garfield.....	Garfield Coal Co.....	Palisade.....	Bituminous.....	207	11	7,890	.....
Winger.....	Clark Coal Co.....	Palisade.....	Bituminous.....	136	4	3,451	.....
Riverside.....	Riverside Coal Co.....	Palisade.....	Semi-bituminous.....	180	6	2,730	50
Stove Canon.....	Stove Canon Coal Co.....	Fruita.....	Bituminous.....	171.5	4	2,462	.....
Hidden Treasure.....	Hidden Treasure Coal Co.....	Fruita.....	Bituminous.....	190	4	2,360	30
Stoltos.....	W. D. Stoltos.....	Palisade.....	Semi-bituminous.....	168	6	2,343	80

MESA COUNTY—Continued

Williams.....	Williams Coal Co.....	Grand Junction.....	Semi-bituminous.....	173	4	1,813	.....
McGinley.....	Wm. McGinley.....	Grand Junction.....	Bituminous.....	201	2	1,602	.....
Corcoran.....	Appleton Coal Co.....	Grand Junction.....	Bituminous.....	209	2	1,082	15
Mt. Lincoln.....	Mt. Lincoln Coal Co.....	Palisade.....	Semi-bituminous.....	184	2	1,078	.....
P. V.....	Kovak & Skoda.....	Cameo.....	Bituminous.....	215	2	939	15
Farmers Mutual.....	Farmers Mutual Coal Co.....	Grand Junction.....	Semi-bituminous.....	141	4	785	25
Midwest.....	Midwest Development Corp.....	Grand Junction.....	Bituminous.....	131	4	1,071	25
Hunter.....	J. B. Hunter.....	Fruita.....	Bituminous.....	175	2	563	.....
Thomas.....	Thomas Coal Co.....	Grand Junction.....	Semi-anthracite.....	200	2	546	.....
Anchor Coal Co.....	Anchor Coal Co.....	Fruita.....	Bituminous.....	109	2	486	.....
Coal Gulch.....	Coal Gulch Coal Co.....	Fruita.....	Bituminous.....	196	2	493	.....
Peacock.....	Peacock Coal Co.....	Grand Junction.....	Semi-bituminous.....	110	2	433	4
Liberty.....	Liberty Coal & Merc. Co.....	Fruita.....	Bituminous.....	182	2	370	3
Grasso.....	N. Grasso.....	Grand Junction.....	Bituminous.....	40	2	176	25
Mt. Gearfield.....	B. Gearhart.....	Palisade.....	Bituminous.....	281	7	7,027	.....
Number	of Mines operated: 23			187.1	141	92,679	.....

MOFFAT COUNTY

Ute (Collom)	Ute Coal Co.....	Axial.....	Bituminous.....	222	3	1,685	.....
Shaver.....	Phelan & Shaver.....	Axial.....	Bituminous.....	206	3	1,421	5
Hart.....	Hart Coal Co.....	Craig.....	Sub-bituminous.....	60	6	766	20
Whitlock.....	E. E. Whitlock.....	Hamilton.....	Bituminous.....	20	1	91	10
Number	of Mines operated: 4			128	13	3,953	.....

MONTEZUMA COUNTY

Spencer.....	Geo. S. Spencer.....	Mancos.....	Sub-bituminous.....	167	2	924	10
School-Sec. Lease.....	Mancos Coal & Fuel Co.....	Mancos.....	Sub-bituminous.....	159	2	837	20
Pinos Altos.....	H. A. Ainsworth.....	Mancos.....	Sub-bituminous.....	272	2	696	.....
Cortez.....	Cortez Coal Co.....	Cortez.....	Sub-bituminous.....	184	1	640	.....
Wilden.....	Wilden Coal Co.....	Mancos.....	Sub-bituminous.....	260	2	413	.....

MONTEZUMA COUNTY—Continued

TABLE D—1931—Continued.

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Average No. of Men Employed		Total Num- ber of Tons per Day Produced	Capacity of Mine per Day, Tons
				No. of Men Worked per Day	Days of Worked		
Black Ace.....	George Stakish.....	Lewis.....	Bituminous.....	147	2	380	.....
Dolores.....	Sagrillo & Clark.....	McPhee.....	Semi-bituminous.....	40	2	250	.....
Mesa Verde.....	G. B. Cushman.....	Cortez.....	Sub-bituminous.....	48	2	174	.....
Morris.....	G. W. Morris.....	Dolores.....	Sub-bituminous.....	60	2	170	5
Braden.....	Olney Braden.....	Dolores.....	Sub-bituminous.....	67	2	105	.....
Todd.....	David Gantz.....	Cortez.....	Sub-bituminous.....	60	2	104	6
McCargish.....	Ed McCargish.....	Yellow Jacket.....	Sub-bituminous.....	60	1	97	.....
Bud Ince.....	Bud Ince.....	Lebanon.....	Bituminous.....	90	1	90	1
Greenwood & Arnott.....	Greenwood & Arnott.....	Lebanon.....	Bituminous.....	50	1	70	8
Mancos Hill.....	Mancos Hill Coal Co.....	Mancos.....	Bituminous.....	13	4	35	10
Number of Mines operated : 15				107	28	4,985	

MONROSE COUNTY

Number of Mines operated:	5	Liberty Bell Coal Co.	Nucla	Bituminous	240	2	678	6
		Wm. J. Oberding	Nucla	Bituminous	110	1	190	
		C. E. Mix	Nucla	Bituminous	24	2	127	
		Chas. A. Rice	Nucla	Sub-bituminous	67	1	83	3
		Mountain View Coal Co.	Colona	Sub-bituminous	35	4	65	2
					84.5		1,143	
						10		

OURAY COUNTY

H. A. Kennedy.....	Ridgway.....	Sub-bituminous.....	194	2	942	.....
Green Mountain.....	Ridgway.....	Sub-bituminous.....	150	2	400	.....
Bright Diamond.....	Ridgway.....	Sub-bituminous.....	80	2	205	2
Colona.....	Colona Coal Co.....	Sub-bituminous.....	56	1	146	.....
Tyler.....	Burro Creek Coal Co.....	Sub-bituminous.....	25	1	49	.....
Number of Mines operated: 5			116.1	8	1,742	

PARK COUNTY

South Park.....	South Park Coal Co.....	Como.....	Bituminous.....	60	4	200	15
Number of Mines operated: 1				60	4	200	

PITKIN COUNTY

Placita.....	Placita Coal M. Co.....	Placita.....	Bituminous.....	163	16	10,175	100
Number of Mines operated: 1				163	16	10,175	

RIO BLANCO COUNTY

Pollard.....	Electric Coal Co.....	Meeker.....	Bituminous.....	253	4	3,128	50
McKee.....	Electric Coal Co.....	Meeker.....	Bituminous.....	122	2	351	10
New Pollard.....	C. F. Pollard.....	Meeker.....	Bituminous.....	292	2	1,924	.....
Lion Canon.....	Lion Canon Coal Co.....	Meeker.....	Bituminous.....	190	2	1,188	.....
Fairfield.....	E. F. Fairfield.....	Meeker.....	Bituminous.....	120	1	400	6
Nine Mile Hill.....	Thos. D. Foreman.....	Meeker.....	Bituminous.....	143	1	384	.....
Douglas Creek.....	Rangely.....	Meeker.....	Bituminous.....	75	1	310	10
Reinau.....	R. C. Reinau.....	Meeker.....	Bituminous.....	50	1	133	.....
Ford.....	J. D. Ford.....	Rio Blanco	Bituminous.....	90	1	129	2
Number of Mines operated: 9				173.2	15	7,947	

TABLE D—1931—Continued.
ROUTT COUNTY

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Number of Workers per Day	Average No. of Employees	Total Number of Miners Produced	Capacity of Mine per Day, Tons
Oak Hills No.1 & 2	Moffat Coal Co.	Oak Creek	Bituminous	75.2	188	121,159	4,000
Arrowhead	Moffat Coal Co.	Oak Creek	Bituminous	90	160	912	300
Harris	Colorado & Utah Coal Co.	Mt. Harris	Bituminous	51.2	103,020	4,000	4,000
Pinnacle	Victor-American Fuel Co.	Oak Creek	Bituminous	40.4	144	75,658	1,750
Wadge	Victor-American Fuel Co.	Mt. Harris	Bituminous	17.1	37	20,632	1,000
Hayden No. 3	Hayden Coal Co.	Haybro	Bituminous	69.7	112	91,672	1,500
Keystone	Keystone Coal Co.	Routt	Bituminous	66.1	83	44,414	1,000
McNeil	McNeil Coal Corp.	McGregor	Bituminous	130	54	34,853	500
Bear River	Bear River Coal Co.	Bear River	Bituminous	46.5	63	29,908	1,000
P. K. No. 1	Pinnacle-Kemmerer Fuel Co.	Mt. Harris	Bituminous	54.5	75	25,767	500
Seven Points	Seven Points Coal Co.	Phippsburg	Bituminous	236	6	8,428	—
Argo	Geo. T. Rolfs	Oak Creek	Bituminous	221	7	5,880	50
Babson	Babson Coal Co.	Hayden	Bituminous	208	3	2,042	20
Fish Creek	Kaspar Weberkirch	Hayden	Bituminous	112	2	1,288	—
Hayden Mutual	Hayden Valley M. Coal Co.	Hayden	Bituminous	156	3	1,200	15
Block	E. H. Zimmerman	Steamboat Springs	Bituminous	146	3	1,046	50
Colorado	Colorado-Pinnacle Coal Co.	Hayden	Bituminous	178	6	1,008	—
Ritchieg	John Ritchieg	Bear River	Bituminous	108	2	906	12
Jones	Jones Coal Co.	Bear River	Bituminous	151	1	857	15
Premium	Fruth & Michelotti	Milner	Bituminous	97	2	697	20
Sage Creek	Robert Hendricks	Hayden	Bituminous	120	2	650	—
Trout Creek	Trout Creek Coal Co.	Oak Creek	Bituminous	151	1	359	2
Butcher Knife	Butcher Knife Coal Co.	Steamboat Springs	Bituminous	69	3	356	—
Edna	Edna Coal Co.	Oak Creek	Bituminous	94	2	352	30
Amos	Amos Coal Co.	McGregor	Bituminous	91	1	291	50
Scott	J. E. Webber	Pagoda	Bituminous	68	1	250	—
Black Wolf	Mountain States Fuel Co.	Mt. Harris	Bituminous	67.5	3	204	10

ROUT COUNTY—Continued

McCrosskey.....	R. Z. McCroskey	Milner.....	Bituminous.....	90	1	106	
Walter.....	Mt. Harris.....	Bituminous.....	26	1	102		
Black Cat.....	Steamboat Springs.....	Bituminous.....	90	1	88	4	
Cherryo.....	Oak Creek.....	Bituminous.....	90	1	75	10	
Jake.....	Steamboat Springs.....	Bituminous.....	40	1	31		
Number of Mines operated : 32			68.1	971	574,211		

SAN MIGUEL COUNTY

Horton.....	Horton Coal Co.	Norwood.....	Sub-bituminous.....	260	2	510	
Gray.....	L. J. Gray.....	Norwood.....	Sub-bituminous.....	120	1	321	2
Keck.....	Hardman & Son.....	Norwood.....	Sub-bituminous.....	120	3	320	
Royers.....	J. S. Royers.....	Norwood.....	Sub-bituminous.....	100	2	200	
Marratt.....	Wm. Marratt.....	Norwood.....	Sub-bituminous.....	120	1	153	
Number of Mines operated : 5			146.7	9	1,504		

WELD COUNTY

Columbine.....	Rocky Mountain Fuel Co.	Serene.....	Sub-bituminous.....	224.1	239	275,072	1,500
Grant.....	Rocky Mountain Fuel Co.	Frederick.....	Sub-bituminous.....	189	165	195,757	1,100
Boulder Valley.....	Boulder Valley Coal Co.	Erie.....	Sub-bituminous.....	144	148	281,064	2,000
Clayton.....	Clayton Coal Co.	Erie.....	Sub-bituminous.....	161	190	178,139	2,000
Morrison.....	Clayton Coal Co.	Erie.....	Sub-bituminous.....	212	66	57,987	1,000
Puritan.....	National Fuel Co.	Frederick.....	Sub-bituminous.....	176.2	188	189,755	2,000
Imperial.....	Imperial Coal Co.	Erie.....	Sub-bituminous.....	164	153	158,787	1,500
Baum.....	Consolidated Coal & Coke Co.	Dacono.....	Sub-bituminous.....	194	109	106,705	1,000
Shamrock.....	Shamrock Coal Co.	Frederick.....	Sub-bituminous.....	105.3	90	87,885	
Sterling.....	McNeil Coal Corp.	Dacono.....	Sub-bituminous.....	146	67	74,662	1,000
Russell.....	W. E. Russell Coal Co.	Frederick.....	Sub-bituminous.....	123	72	64,372	700
Liley.....	Liley Coal & Land Co.	Frederick.....	Sub-bituminous.....	205	42	43,753	400
White Ash.....	White Ash Coal Co.	La Salle.....	Sub-bituminous.....	175	4	2,146	15
Sunset.....	Sunset Fuel Co.	La Salle.....	Sub-bituminous.....	91	2	229	6
Number of Mines operated : 14			174.6	1,535	1,686,313		

STATE OF COLORADO

Total Number of Mines Operated.....	318
Total Number of Man-Days Worked.....	139.7
Total Number of Men Employed (Average).....	10,015
Total Number of Tons of Coal Produced.....	6,604,063

TABLE D—1932.

SHOWING BY COUNTIES, MINES OPERATED, NAME OF OPERATOR AND ADDRESS OF MINE, CHARACTER OF COAL, NUMBER OF DAYS WORKED, AVERAGE NUMBER OF MEN EMPLOYED, TOTAL NUMBER OF TONS OF COAL PRODUCED IN 1932 AND CAPACITY OF MINE PER DAY IN TONS.

ARAPAHOE COUNTY

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Average No. of Men Employed	Total Number of Tons Produced per Day	Mine Capacity per Day, Tons
Air Line.....	C. J. Gallagher.....	Deer Trail.....	Sub-bituminous.....	60	2	290
Number of Mines operated : 1				60	2	290

ARCHULETA COUNTY

A. & B.	Antonatti & Bellini.....	Sub-bituminous.....	90	2	315	2
Cox.....	T. L. Cox.....	Bituminous.....	180	2	190	1
McBroom.....	Chas. McBroom.....	Bituminous.....	14	1	96	.....
Nossaman.....	W. J. Nossaman.....	Bituminous.....	100	1	85	.....
Hardman.....	A. L. Harrington.....	Bituminous.....	20	1	65	.....
Number of Mines operated : 5			96.3	7	751	

BOULDER COUNTY

Industrial.....	Rocky Mountain Fuel Co.....	Sub-bituminous.....	167.8	168	121,416	800
Vulcan.....	Rocky Mountain Fuel Co.....	Sub-bituminous.....	239.1	62	58,983	225
Standard.....	Rocky Mountain Fuel Co.....	Sub-bituminous.....	212.5	46	45,364	300
Monarch No. 2.....	National Fuel Co.....	Sub-bituminous.....	231	132	10,897	650
Hi-Way.....	Louisville-Lafayette Coal Co.....	Sub-bituminous.....	279	82	91,987	750
Crown.....	Gorham.....	Sub-bituminous.....	218	75	65,507	500
Black Diamond No. 2.....	Lafayette.....	Sub-bituminous.....	310	55	58,385	500

BOULDER COUNTY--Continued

DELTA COUNTY

TABLE D—1932—Continued.
ELBERT COUNTY

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Average No. of Men Employed	Total Number of Tons Produced	Mine per Day, Tons	Capacity of Mine per Day, Tons
Wright	Wright Barker	Matheson	Sub-bituminous.....	218	3	2,696	100
Masco	Masco Coal, Oil & Clay Co.	Matheson	Sub-bituminous.....	161	4	809	100
Buick	Buick Coal Co.	Agate	Sub-bituminous.....	90	2	400	.....
Shay	O. J. Shay	Matheson	Sub-bituminous.....	38	2	394	.....
	Number of Mines operated: 4			141.3	11	4,299	.....

EL PASO COUNTY

Pikeview	Pikes Peak Fuel Co.	Colorado Springs	Sub-bituminous.....	219	160	215,441	1,200
City Coal Mines	Colorado Springs Co.	Colorado Springs	Sub-bituminous.....	209	64	40,286	500
Corley	Corley Coal Co.	Colorado Springs	Sub-bituminous.....	257	34	28,670	300
Jimmy Camp	Thomas Mining Co.	Colorado Springs	Sub-bituminous.....	208	20	12,756	100
Kurie	Kurie Coal Co.	Colorado Springs	Sub-bituminous.....	258	13	6,434	.....
Franceville	Howells Coal Co.	Colorado Springs	Sub-bituminous.....	123	14	3,009	75
Climax	Danville Coal Co.	Colorado Springs	Sub-bituminous.....	220	2	2,894	.....
Altitude	Altitude Fuel Co.	Colorado Springs	Sub-bituminous.....	318	9	2,345	40
Drennan	Drennan Coal Co.	Fountain	Sub-bituminous.....	176	2	1,269	25
Golden Dawn	Elliott & Magree	Yoder	Sub-bituminous.....	201	2	495	.....
	Number of Mines operated: 10			220.1	320	313,599	.....

FREMONT COUNTY

Chandler.....	Chandler.....	Bituminous.....	142.4	279	112,656	1000
John D. Cribbs.....	Rockvale.....	Bituminous.....	115	71	26,493	350
Rockvale No. 2.....	Colorado Fuel & Iron Co.....	Bituminous.....	302	40	48,966	400
Rockvale No. 3.....	Canon Reliance Coal Co.....	Bituminous.....	124.5	86	47,628	500
Canon.....	Canon City.....	Bituminous.....	234	37	17,350	75
Double Dick.....	Florence.....	Bituminous.....				
Double Dick Coal Co.....	Florence.....	Bituminous.....	77	7	1,411	---
Caldirola Coal Co.....	Florence.....	Semi-bituminous.....	236	18	16,033	100
Canon Monarch.....	Florence.....	Bituminous.....	225	25	13,505	10
Griffiths Coal Co.....	Canon City.....	Bituminous.....	298	17	12,601	75
Giuliano-Carpine Coal Co.....	Coal Creek.....	Bituminous.....	231	32	9,841	50
Giuliano-Carpine Coal Co.....	Florence.....	Bituminous.....	129	15	5,383	50
Canon Quality Coal Co.....	Coal Creek.....	Bituminous.....	105	26	7,823	---
Oreecchio Coal Co.....	Rockvale.....	Bituminous.....	244	25	7,694	45
Brookside.....	Florence.....	Semi-bituminous.....	220	11	6,346	50
Rocheo.....	Coal Creek.....	Bituminous.....	120	22	5,876	---
Bluff Springs No. 2.....	Florence.....	Bituminous.....				
F. V. Bloom.....	Florence.....	Bituminous.....	271	10	3,395	---
Petry & Fiorina.....	Florence.....	Semi-bituminous.....	214	5	2,586	20
American Independent Coal Co.....	Florence.....	Semi-bituminous.....	120	8	2,000	12
Lippis & Bosco Coal Co.....	Canon City.....	Bituminous.....	127	6	1,915	15
Canon Imperial Coal Co.....	Florence.....	Bituminous.....	118	24	1,624	---
Cuckoo Coal Co.....	Canon City.....	Bituminous.....	134	6	1,368	10
Bald Coal Co.....	Florence.....	Bituminous.....	86	10	1,009	30
Beer Coal Co.....	Florence.....	Bituminous.....	41	10	887	30
Jack O'Lantern.....	Florence.....	Bituminous.....	182	4	724	4
Katting.....	Florence.....	Bituminous.....	216	1	650	3
Willie No. 1.....	Paul Carsita.....	Bituminous.....				
Willie No. 2.....	James Brothers.....	Bituminous.....	150	2	475	2
Yellico.....	Yellico & Yellico.....	Bituminous.....	43	2	498	---
Canon Liberty.....	Canon Liberty Coal Co.....	Bituminous.....	70	6	349	10
Brewster.....	Brewster Coal Co.....	Bituminous.....	92	2	314	4
New Brewster.....	Brewster Coal Co.....	Bituminous.....	73	3	263	---
Fawn Hollow Coal Co.....	Canon City.....	Bituminous.....	60	10	175	10
North Magnet.....	Perino Coal Co.....	Bituminous.....	34	3	149	---
	Number of Mines operated : 32.....		159	823	357,987	---

TABLE D—1932—Continued.
GARFIELD COUNTY

Name of Mine	Name of Company	Mine Post Office	Character of Coal	AveragE No. of Men Employed		Total Num- ber of Tons Produced	CapacitY of Mine per Day, Tons
				No. of Days of Worked	AveragE No. of Days per Month		
South Canon	South Canon Mine Leasing Co.	Glenwood Springs	Bituminous	228	10	15,265	75
Carbonera		Mack	Bituminous	162.5	8	6,869	60
McDonald		Glenwood Springs	Bituminous	119	4	1,819	200
Rauman		Rifle	Bituminous	246	2	1,460	10
Estes Bros.		Rifle	Bituminous	144	2	1,445	.....
Zieseniss	Henry Zieseniss.	Rifle	Bituminous	148.8	2	1,426	.....
Harvey Gap	James Le Donne	New Castle	Bituminous	234	4	1,165	10
Earnest	Kenneth Gardner	Carbondale	Bituminous	252	2	1,042	10
Roberson	Roberson Coal Co.	Rifle	Bituminous	365	2	780	.....
Silt	Morgan Coal Co.	Silt	Bituminous	143	2	706	.....
Ohkraut	Frank Deboy	Glenwood Springs	Bituminous	126	1	624	.....
North Canon	Rifle Coal Mines, Inc.	Rifle	Bituminous	76	2	456	.....
Paradise	Angelo Belliodi	Glenwood Springs	Bituminous	102	2	234	.....
McLean	Crumpley Coal Co.	Rifle	Bituminous	30	2	110	.....
Old Keystone	Church & Schlegel	New Castle	Bituminous	55	3	43	.....
Number of Mines operated: 15...				172.8	48	33,444	
GUNNISON COUNTY							
Crested Butte	Colorado Fuel & Iron Co.	Crested Butte	Bituminous	118.2	184	140,671	1200
Somerset	Calumet Fuel Co.	Somerset	Bituminous	114	98	124,594	1200
Oliver	Oliver Coal Co.	Somerset	Semi-anthracite	200	41	46,704	500
Alpine	Rocky Mountain Fuel Co.	Baldwin	Semi-bituminous	126	60	37,276	350
Horace	Horace Anthracite Co.	Crested Butte	Anthracite	107.8	78	25,390	275
Bulkeley No. 2	Crested Butte Coal Co.	Crested Butte	Bituminous	213	28	22,545	500
Ohio Creek	Ohio Creek Coal Co.	Gunnison	Bituminous	130	130	1,772	50

GUNNISON COUNTY—Continued

Hawks Nest.....	Somerset.....	Bituminous.....	147.5	3	1,636	14
Bear.....	Somerset.....	Bituminous.....	180	4	1,283	4
Castle Rock.....	Gunnison.....	Sub-bituminous.....	131	2	1,004	20
Richardson.....	Gunnison.....	Bituminous.....	140	2	886	10
Carbon Creek Coal Co.....	Gunnison.....	Bituminous.....	189	1	388	.....
Baldwin-Star.....	Gunnison.....	Sub-bituminous.....	40	1	300	20
Hinkle.....	Gunnison.....	Sub-bituminous.....	67	2	265	8
Number of Mines operated: 14.....			129.8	509	404,714	—

HUFERFANO COUNTY

Robinson No. 4.....	Colorado Fuel & Iron Co.....	Far.....	138.2	264	199,331	1000
Kebler No. 2.....	Colorado Fuel & Iron Co.....	Tioga.....	108.2	165	81,807	850
Alamo No. 2.....	Alamo Coal Co.....	Alamo.....	194	95	68,984	1000
Alamo No. 2.....	Barbour Coal Co.....	Barbour Coal Co.....	82	142	42,733	1000
Oakdale.....	Oakdale Coal Co.....	Oakview.....	28	23	3,317	.....
Calumet No. 1.....	Calumet Fuel Co.....	Delecarbon.....	101.1	122	53,822	600
Calumet No. 2.....	Calumet Fuel Co.....	Delecarbon.....	41.5	63	13,835	600
Gordon.....	Gordon Coal Co.....	Gordon.....	202	53	45,870	500
Pryor.....	Pryor Coal M. Co.....	Pryor.....	91.2	95	42,942	500
Ravenwood.....	Caliente Coal Co.....	Ravenwood.....	83	105	27,551	400
Maitland.....	Caliente Coal Co.....	Maitland.....	59	42	4,700	300
Vesta.....	Minnequa Fuel Co.....	Walsenburg.....	172	24	19,065	.....
Sunnyside.....	Elk Heart Coal Co.....	Walsenburg.....	93.3	40	17,091	.....
Ojo Canon.....	Peachey Coal Co.....	Walsenburg.....	206	43	16,955	150
Toltec.....	Aztec Coal Mining Co.....	Toltec.....	41	46	8,872	.....
Torrid.....	Black Hawk Coal M. Co.....	Aguilar.....	159	10	6,585	50
Black Hawk.....	Black Hawk Coal M. Co.....	Bituminous.....	257	10	4,146	25
Mutual.....	Mutual Coal Co.....	Bituminous.....	117	70	3,224	250
Bunker Hill.....	Steve Mattiv & Sons.....	Bituminous.....	100	3	2,000	20
Leader.....	Leader Coal Co.....	Bituminous.....	150	5	1,805	15
Niggerhead.....	Niggerhead Mining Co.....	Bituminous.....	41	16	1,276	.....
George No. 2.....	Sam George & Sons.....	Bituminous.....	248	4	1,258	12
Fruth.....	Geo. Fruth.....	Bituminous.....	55	9	1,382	.....

TABLE D—1932—Continued
HUERFANO COUNTY—Continued

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Total Number of Mines Operated:			
				Average Number of Miners Employed	Number of Days Worked	Total Number of Tons Produced	Mine per Day, Tons
Caddell No. 3	Caddell Coal Co.	Walsenburg	Bituminous	125	8	1,253	20
Round Oak	Giordano Coal Co.	Walsenburg	Bituminous	220	3	493	6
La. Veta Pass	J. Murrell	La. Veta	Bituminous	132	2	351	5
Costa	Costa Coal Co.	Toledo	Bituminous	90	2	300	—
Bunker Hill No. 2	Sours Coal Co.	Walsenburg	Bituminous	44	4	105	10
Bunker Hill No. 3	Meyers & West	Rapson	Bituminous	100	2	165	10
Chapparal Canon	L. V. Powell	La. Veta	Bituminous	65	1	119	—
Klikus	Klikus Coal Co.	La. Veta	Bituminous	200	3	100	1
Caddell No. 1	Sweet Bros.	Walsenburg	Bituminous	30	2	40	—
Number of Mines operated: 32				108.3	1476	678,492	
JACKSON COUNTY							
Moore No. 1 & Strip Pit	North Park Coal Co.	Coalmont	Semi-bituminous	192	53	41,127	700
Marr	Geo. M. Barnell	Walden	Semi-bituminous	193	4	2,192	—
Conrad	Geo. M. Barnell	Walden	Semi-bituminous	25	1	60	—
Mitchell	Geo. W. Davidson	Walden	Semi-bituminous	34	1	103	—
Number of Mines operated: 4				191.5	59	43,482	
JEFFERSON COUNTY							
Leyden No. 2	Leyden Lignite	Leyden via. Golden	Sub-bituminous	248.8	87	109,557	750
Christensen	Good Fuel Co.	Littleton	Sub-bituminous	296	26	18,920	160
Blue Bird	Blue Bird Mines, Inc.	Morrison	Sub-bituminous	170	9	3,083	—
Unity	Unity Coal Co.	Littleton	Sub-bituminous	85	14	820	60
Number of Mines operated: 4				235.9	136	132,380	

LA PLATA COUNTY

Castle.....	Durango.....	Bituminous.....	257	6	4,653	50
O. K.....	Durango.....	Bituminous.....	96.5	10	4,245	50
Triangle.....	Durango.....	Bituminous.....	104	5	3,037	.....
Sunshine Coal Co.....	Durango.....	Bituminous.....	140	3	2,606	.....
Morning Star.....	Durango.....	Bituminous.....	192	3	2,569	13
Black Diamond Coal Co.....	Durango.....	Bituminous.....	135	4	2,171	20
Valley View Coal Co.....	Mancos.....	Bituminous.....	190	3	1,235	15
Peerless.....	Durango.....	Bituminous.....	106	3	1,278	.....
Durango.....	Durango.....	Bituminous.....	95.7	3	533	6
Fort Lewis.....	Kline.....	Sub-bituminous.....	115.5	2	543	15
Tipotsch.....	Hesperus.....	Sub-bituminous.....	179	1	482	.....
Excelsior.....	Bayfield.....	Bituminous.....	124	2	426	10
Morning Glory.....	Bayfield.....	Bituminous.....	84	1	423	25
Shamrock.....	Bayfield.....	Bituminous.....	105	3	404	.....
Superior.....	Durango.....	Bituminous.....	124	2	312	.....
Soda Springs.....	Wood & Wood.....	Bituminous.....	90	2	287	.....
Hunt.....	Wm. Hunt.....	Sub-bituminous.....	52	2	245	6
Pine River.....	Herman Schultz.....	Bituminous.....	93	1	179	.....
Hammond.....	M. F. Leonard.....	Bituminous.....	56	1	175	.....
Ellidge.....	Frank Ellidge.....	Bituminous.....	60	2	100	.....
Rasmussen.....	H. J. Rasmussen.....	Bituminous.....	60	1	75	.....
Number of Mines operated: 21			127.6	60	25,978	

LARIMER COUNTY

Benson.....	Carr.....	Sub-bituminous.....	205	5	2,151	20
Hackman Coal Co.....	Carr.....	Sub-bituminous.....	139	3	977	10
Ayshire Coal Co.....	Carr.....	Sub-bituminous.....	145	3	794	15
Pioneer.....	Carr.....	Sub-bituminous.....	264	3	497	.....
White Rose.....	Carr.....	Sub-bituminous.....	105	3	260	10
Number of Mines operated: 5			175.5	17	4,679	

TABLE D—1932—Continued.
LAS ANIMAS COUNTY

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Total Number of Employees	Average Number of Days Worked per Employee	Total Number of Days Worked per Employee per Year	Capacity of Mine per Day, Tons
Frederick	Colorado Fuel & Iron Co.	Valdez	Bituminous	60.1	370	121,206	1800
Morley	Colorado Fuel & Iron Co.	Morley	Bituminous	71.6	337	114,695	1800
Toller	Colorado Fuel & Iron Co.	Tollerburg	Bituminous	60	25	2,415	1800
Delagua	Victor-American Fuel Co.	Delagua	Bituminous	132.1	346	196,204	1800
Brodhead No. 9	Temple Fuel Co.	Brodhead	Bituminous	143	205	90,110	700
Kenneth	Vickers Coal Co.	Rugby	Bituminous	159	84	60,791	500
Boncarbo	American Smelting & Ref. Co.	Coloidea	Bituminous	76	117	58,183	1200
Ludlow	Huerfano Coal Co.	Ludlow	Bituminous	124.4	108	51,750	600
Empire	Empire Coal Co.	Aguilar	Bituminous	61.2	63	30,205	600
Bear Canon No. 6	Bear Canon Coal Co.	Vallboro	Bituminous	75.2	79	27,947	1000
Creston	Jewell Collieries Corp.	Aguilar	Bituminous	104	45	18,614	250
Dix	Dick Coal Co.	Dicks	Bituminous	128.7	22	17,657	300
Sopris No. 1	Deidosso Coal Co.	Sopris	Bituminous	120	32	14,397	300
Engle	Deidosso Coal Co.	Engle	Bituminous	149	4	2,627	600
Rapson	Pio Michell	Rapson	Bituminous	12.5	29	14,111	150
Thor	Thor Fuel Co.	Trinidad	Bituminous	27.5	69	7,820	280
Eureka	Phoenix Fuel Co.	Trinidad	Bituminous	64	28	5,586	150
Jeffries	Jeffries Fuel & Supply Co.	Trinidad	Bituminous	306	5	4,265	35
Bowen	Homo Fuel & Supply Co.	Trinidad	Bituminous	175	5	2,948	15
Baldy	Bulky Coal Co.	Trinidad	Bituminous	233	3	1,770	7
Daisy	Daisy Coal Co.	Aguilar	Bituminous	237	5	1,665	10
La Belle	Wm. Morgan	Trinidad	Bituminous	102	6	1,646	10
Frisco	Frisco Coal Co.	Trinidad	Bituminous	249	3	1,493	8
Boshour	A. T. Tucker	Trinidad	Bituminous	247	4	1,467	8
Forbes	W. E. Riggs	Trinidad	Bituminous	301	3	1,451	10
Santa Fe	Santa Fe Coal Co.	Trinidad	Bituminous	110.5	3	1,288	10
Pritchard	Chas. Pritchard	Trinidad	Bituminous	112	2	740	10

LAS ANIMAS COUNTY—Continued

Gem.....	Aguilar.....	Bituminous.....	120	4	656	25
Fishers Peak.....	Trinidad.....	Bituminous.....	143	1	636	3
Lakeview.....	Trinidad.....	Bituminous.....	125	2	519	51
Star.....	Aguilar.....	Bituminous.....	139	2	501	5
Blue Blaze.....	Trinidad.....	Bituminous.....	139	2	460	5
Jackson.....	Trinidad.....	Bituminous.....	180	2	360	10
Flag.....	Trinidad.....	Bituminous.....	175	3	332	10
Pickford.....	Trinidad.....	Bituminous.....	108	3	332	10
Ferrill.....	Trinidad.....	Bituminous.....	159	3	307	10
Martinez.....	Cokedale.....	Bituminous.....	200	1	305	10
Valley.....	Sopris.....	Bituminous.....	74	2	282	10
Wiley.....	Cokedale.....	Bituminous.....	102	2	280	10
Timber Canon.....	Trinidad.....	Bituminous.....	44	4	207	10
Hill Top.....	Trinidad.....	Bituminous.....	115	2	150	5
Motarano.....	Sopris.....	Bituminous.....	50	2	129	5
Bagley.....	Trinidad.....	Bituminous.....	32	1	115	3
Crystal.....	Dicks.....	Bituminous.....	100	1	80	3
Storz.....	Weston.....	Bituminous.....	50	1	75	2
Vigil.....	Valdez.....	Bituminous.....	13	2	35	3
Ruby.....	Cokedale.....	Bituminous.....	12	1	15	3
Number of Mines operated: 47.....			98.6	2033	858,537	30

MESA COUNTY

McNeil Coal Corp.....	Cameo.....	Semi-bituminous.....	57	45	26,701	600
Mt. Garfield.....	Palisade.....	Semi-bituminous.....	264	9	7,184	100
Garfield.....	Palisade.....	Semi-bituminous.....	144	10	6,340	100
Palisade.....	Palisade.....	Semi-bituminous.....	189	10	6,335	100
P. V.....	Cameo.....	Semi-bituminous.....	160.7	3	2,673	25
Stove Canon Mine Co.....	Fruita.....	Semi-bituminous.....	163	4	2,458	40
McGinley.....	Grand Junction.....	Bituminous.....	237	2	2,175	10
Wm. McGinley.....	Palisade.....	Semi-bituminous.....	144	4	2,043	80
W. D. Stokes.....	Palisade.....	Semi-bituminous.....	162	5	1,846	80
Riverside.....	Palisade.....	Semi-bituminous.....	91	3	1,809	30
Wingert.....	Palisade.....	Semi-bituminous.....				

TABLE D—1932—Continued.
MESA COUNTY—Continued

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Number of Days Worked	Average No. of Men Employed	Total Number of Men Produced	Capacity of Mine per Day, Tons	
Midwest.	Midwest Red Arrow Co.	Palisade	Semi-bituminous	187	6	1,803	40	
Hidden Treasure.	Hidden Treasure Coal Co.	Fruita	Bituminous	117	3	1,442	40	
Williams.	Williams Coal Co.	Grand Junction	Semi-bituminous	133	3	1,251	30	
Anchor No. 2	Anchor Coal Leasing Co.	Grand Junction	Bituminous	132	2	823	25	
Farmers Mutual.	Farmers Mutual Coal Co.	Grand Junction	Bituminous	204	3	762	25	
Peacock.	Peacock Coal Co.	Grand Junction	Bituminous	230	3	709	4	
Mt. Lincoln.	Mt. Lincoln Coal Co.	Palisade	Semi-bituminous	134	2	514	5	
Hunter.	W. W. Gray.	Fruita	Semi-bituminous	151	2	511	10	
Corcoran.	Carnahan & Phillips.	Grand Junction	Semi-bituminous	101	2	486	10	
Coal Gulch	Coal Gulch Coal Co.	Loma	Semi-bituminous	203	1	475	10	
Grasso.	Nuncio Grasso.	Grand Junction	Bituminous	105	2	473	10	
Liberty (Nearing)	George McMillin.	Fruita	Bituminous	198	2	463	25	
Big Tree.	Ralph Talarico.	Grand Junction	Bituminous	120	2	360	25	
Thomas.	Thomas Coal Co.	Grand Junction	Bituminous	90	3	375	5	
Mundell.	J. W. Mundell.	Grand Junction	Bituminous	200	2	220	.....
Crescent.	W. F. Jarvis.	Grand Junction	Bituminous	60	3	174	50	
Waldron.	Panther Coal Co.	Palisade	Semi-bituminous	25	3	25	50	
Number of Mines operated: 27				125.1	139	70,330		
MOFFAT COUNTY								
Collom.	Ute Coal Co.	Axial	Bituminous	118	2	1,577	40	
Hart.	Thomas Green.	Craig	Bituminous	108	2	889	20	
Shaver.	Shaver.	Axial	Bituminous	67	2	404	20	
Whitlock.	E. E. Whitlock.	Hamilton	Bituminous	60	2	210	1	
Wisconsin.	Wisconsin Coal Co.	Lay	Bituminous	90	2	150	35	
Shelton.	H. D. Shelton.	Price Creek	Bituminous	25	1	35	.....
Number of Mines operated: 6				82.8	11	3,215		

MONTEZUMA COUNTY

School Section Lease.....	Mancos Coal & Fuel Co.....	Mancos.....	Bituminous.....	146	3	896	.....
Spencer.....	Geo. S. Spencer.....	Mancos.....	Bituminous.....	184	2	798	20
Pinos Altos.....	Ainsworth & Lewis.....	Mancos.....	Bituminous.....	195	3	679	.....
Dolores.....	Frank Sagrillo.....	Dolores.....	Bituminous.....	200	2	671	6
Mancos Hill.....	Mancos Hill Coal Co.....	Mancos.....	Bituminous.....	99	4	623	15
Cortez.....	A. F. Hopper Co.....	Cortez.....	Bituminous.....	107	1	593	.....
Williden Coal Co.....	Williden Coal Co.....	Mancos.....	Bituminous.....	90	2	243	.....
Gantz.....	David Gantz.....	Todd.....	Bituminous.....	106	2	194	.....
Superior.....	Ed McCargish.....	Lewis.....	Bituminous.....	150	1	114	.....
Black Ace.....	Geo. Stakish.....	Lewis.....	Bituminous.....	37	2	105	.....
Bud Inc.....	Bud Inc.....	Lebanon.....	Semi-bituminous.....	40	2	80	.....
Braden.....	Olney Braden.....	Dolores.....	Bituminous.....	50	2	42	.....
Glover.....	W. R. Glover.....	Dolores.....	Bituminous.....	16	1	10	.....
Number of Mines operated : 13.....	.....	.....	.....	115	27	5,048	.....

MONTROSE COUNTY

Liberty Bell.....	King & Mitchell.....	Nucla.....	Bituminous.....	280	1	921	6
Independent.....	Wm. J. Oberding.....	Nucla.....	Bituminous.....	160	1	203	.....
Pleasant Valley.....	Chas. Rice.....	Nucla.....	Sub-bituminous.....	65	1	90	.....
Rice.....	Arthur Rice.....	Nucla.....	Sub-bituminous.....	30	1	40	.....
Meek.....	Crystal Creek Coal Co.....	Maher.....	Sub-bituminous.....	60	1	25	.....
Number of Mines operated : 5.....	.....	.....	.....	79	5	1,279	.....

OURAY COUNTY

Bright Diamond.....	E. G. Slagle.....	Ridgway.....	Sub-bituminous.....	155	2	410	.....
Kennedy.....	H. A. Kennedy.....	Ridgway.....	Sub-bituminous.....	150	2	338	.....
Burro Creek.....	Lowery Spence.....	Ridgway.....	Sub-bituminous.....	130	1	315	4
Colona.....	Frank Anderson.....	Montrose.....	Sub-bituminous.....	18	1	70	.....
Number of Mines operated : 4.....	.....	.....	.....	126.3	6	1,133	.....

PARK COUNTY

Name of Mine	Name of Company	Mine Post Office		Character of Coal	Capacity of Mine per Day, Tons
		Average Employee No. of Men	Total Number Employed		
American (King)	Dunkle & Johnson.....	Como.....	Bituminous.....	180	300
Number of Mines operated : 1.....				180	300

PITKIN COUNTY

Placita.....	Placita Mine Leasing Co.....	Placita.....	Bituminous.....	85	9	1,852
				85	9	1,852
Number of Mines operated : 1.....						

RIO BLANCO COUNTY

Pollard.....	Electric Coal Co.....	Meeker.....	Bituminous.....	237	3	2,144
McKee.....	Electric Coal Co.....	Meeker.....	Bituminous.....	46	1	119
New Pollard.....	C. F. Pollard	Meeker.....	Bituminous.....	258.5	2	2,085
Reinau.....	R. C. Reinau.....	Meeker.....	Bituminous.....	233	1	747
Lion Canon.....	Hart & Son.....	Meeker.....	Bituminous.....	155	2	671
Johnny Boy.....	Hart & Son.....	Meeker.....	Bituminous.....	46	2	184
Nine Mile Hill.....	Thos. D. Foreman.....	Meeker.....	Bituminous.....	106	1	635
Fairfield.....	C. F. Fairfield.....	Meeker.....	Bituminous.....	110	2	500
Sulphur Creek.....	Claude Boyd.....	Meeker.....	Bituminous.....	65	1	161
Douglas Creek.....	Jones & Trachta.....	Rangely.....	Bituminous.....	10	1	32
Number of Mines operated : 10.....				137.5	16	7,278

ROUTT COUNTY

Moffat No. 1 and 2.....	Moffat Coal Co.....	Oak Creek.....	Bituminous.....	75.5	144	124,825	4000
Harris.....	Colorado & Utah Coal Co.	Mt. Harris.....	Bituminous.....	53.8	133	101,824	4000
Hayden.....	Hayden Coal Co.	Haybro.....	Bituminous.....	67.3	112	90,083	1500
Pinnacle.....	Victor-American Fuel Co.	Oak Creek.....	Bituminous.....	63.8	114	73,682	1500
Wadge.....	Victor-American Fuel Co.	Mt. Harris.....	Bituminous.....	24.9	34	20,702	1000
Bear River.....	Bear River Coal Co.	Bear River.....	Bituminous.....	74	66	45,411	1000
Keystone.....	Keystone Coal Co.	Routt.....	Bituminous.....	60.1	69	39,184	1000
P. K. No. 1.....	Pinnacle-Kemmerer Fuel Co.	Mt. Harris.....	Bituminous.....	87.8	63	31,991	600
McNeil.....	McNeil Coal Corporation	McGregor.....	Bituminous.....	115.5	51	27,946	250
Argo Gulch.....	Geo. T. Rothes.....	Oak Creek.....	Bituminous.....	195	6	6,209	40
Seven Points.....	Western Hard Coal Co.	Philippsburg.....	Bituminous.....	103	16	2,757	.....
Babson.....	Babson Coal Co.	Hayden.....	Bituminous.....	144	3	1,550	40
Butcher Knife.....	Ritter & McShane	Steamboat Springs.....	Bituminous.....	77	2	1,363	30
Block.....	Hayden Valley M. Coal Co.	Hayden.....	Bituminous.....	148	3	1,199	15
Amos.....	John Pollo.....	Steamboat Springs.....	Bituminous.....	190	2	1,136	10
Ritchieg.....	Little Pinnacle Coal Co.	Bear River.....	Bituminous.....	137	2	1,108	10
Black Cat.....	Black Cat Coal Co.	Bear River.....	Bituminous.....	96	5	596	20
Block.....	E. H. Zimmerman	Steamboat Springs.....	Bituminous.....	105	2	582	50
Amos.....	Amos Coal Co.	McGregor.....	Bituminous.....	185	1	423	50
Premium.....	Froth & Micheletti	Milner.....	Bituminous.....	61	1	380	30
Clark Coal Co.....	Clark Coal Co.	Milner.....	Bituminous.....	168	3	364	8
Jones.....	Jones Coal Co.	Bear River.....	Bituminous.....	110	1	361	15
Fish Creek.....	Kaspar Webberkirch	Hayden.....	Bituminous.....	43	1	160	.....
Chergo.....	Tom Chergo	Oak Creek.....	Bituminous.....	71	1	130	10
Scott.....	J. E. Webber	Pagoda.....	Bituminous.....	38	1	128	.....
Apex.....	Geo. Steel & Co.	Oak Creek.....	Bituminous.....	41	1	125	5
Edna.....	Edna Coal Co.	Oak Creek.....	Bituminous.....	20	1	34	.....
Number of Mines operated: 27.....				72.4	838	574,253	

SAN MIGUEL COUNTY

Gray.....	L. J. Gray.....	Norwood.....	Sub-bituminous.....	200	1	324	.....
Horton.....	Horton Coal Co.	Norwood.....	Sub-bituminous.....	110	1	264	.....
Marrill.....	Wm. Marrill	Norwood.....	Sub-bituminous.....	90	3	161	.....
Galloway.....	Louis Veo.....	Norwood.....	Sub-bituminous.....	45	2	50	.....
Elder.....	Elder Coal Co.	Norwood.....	Sub-bituminous.....	50	1	33	.....
Number of Mines operated: 5.....				90	8	832	

TABLE D—1932—Continued.
WELD COUNTY

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Averag ^e No. of Men Employed	Total Number of Miners Employed	Capacity of Mine per Day, Tons
Columbine.....	Rocky Mountain Fuel Co.....	Serene.....	Sub-bituminous.....	237.9	213	278,678
Grant.....	Rocky Mountain Fuel Co.....	Frederick.....	Sub-bituminous.....	150.6	120	95,134
Clayton.....	Clayton Coal Co.....	Erie.....	Sub-bituminous.....	166	195	151,585
Morrison.....	Clayton Coal Co.....	Erie.....	Sub-bituminous.....	128	93	82,825
Boulder Valley.....	Boulder Valley Co.....	Erie.....	Sub-bituminous.....	161	120	207,515
Imperial.....	Imperial Coal Co.....	Erie.....	Sub-bituminous.....	153	141	123,747
Puritan.....	National Fuel Co.....	Frederick.....	Sub-bituminous.....	129.5	154	142,767
Baum.....	Consolidated Coal & Coke Co.....	Dacono.....	Sub-bituminous.....	199	117	102,684
Russell.....	W. E. Russell Coal Co.....	Frederick.....	Sub-bituminous.....	188	66	92,406
Sterling.....	McNeil Coal Corporation.....	Dacono.....	Sub-bituminous.....	154	72	77,630
Shamrock.....	Shamrock Coal Co.....	Frederick.....	Sub-bituminous.....	107.5	86	62,925
Lilley.....	Lilley Coal & Land Co.....	Frederick.....	Sub-bituminous.....	203	39	38,479
Monroe.....	Monroe Coal Co.....	Lafayette.....	Sub-bituminous.....	118	23	6,631
White Ash.....	White Ash Coal Co.....	La Salle.....	Sub-bituminous.....	151	5	2,990
Buddy.....	Buddy Coal Co.....	La Salle.....	Sub-bituminous.....	110	8	2,378
Sunset.....	Sunset Fuel Co.....	La Salle.....	Sub-bituminous.....	98	9	864
Pickett (Hill)	L. W. Pickett.....	Briggsdale.....	Sub-bituminous.....	90	4	792
Number of Mines operated : 17				166.1	1465	1,470,030
Total Number of Mines operated : 345				134.7	8786	5,616,525

TABLE D—1933.

SHOWING BY COUNTIES, MINES OPERATED, NAME OF OPERATOR AND ADDRESS OF MINE, CHARACTER OF COAL, NUMBER OF DAYS WORKED, AVERAGE NUMBER OF MEN EMPLOYED, TOTAL NUMBER OF TONS OF COAL PRODUCED IN 1933 AND CAPACITY OF MINE PER DAY IN TONS.

ADAMS COUNTY

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Average No. of Men Employed	Total Number of Tons per Day	Capacity of Mine per Day, Tons
Blue Ribbon.....	Blue Ribbon Coal Co.....	Lafayette.....	Sub-bituminous.....	103 103	4 4	311 311

ARAPAHOE COUNTY

Air Line.....	Deer Trail Coal Co.....	Deer Trail.....	Sub-bituminous.....	50 50	2 2	180 180
Number of Mines operated: 1.....						10

ARCHULETA COUNTY

CoX.....	T. L. Cox.....	Sub-bituminous.....	162	1	218	.....
Bellino.....	Bellino.....	Sub-bituminous.....	84	1	207	.....
Nossaman.....	W. T. Nossaman.....	Sub-bituminous.....	120	1	164	.....
Hardman.....	H. L. Hardman.....	Sub-bituminous.....	60	1	121	.....
McBroom.....	Dyke.....	Sub-bituminous.....	10	1	47	.....
Number of Mines operated: 5.....			87.2	5	757	

TABLE D—1933—Continued.
BOULDER COUNTY

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Average No. of Men Employed	Total Number of Workers	Days per Year	Mine per Day, Tons	Capacity per Day, Tons
Industrial	Rocky Mountain Fuel Co.	Superior	Sub-bituminous	151.7	191	93,609	800	800
Vulcan	Rocky Mountain Fuel Co.	Lafayette	Sub-bituminous	145.3	63	33,779	250	250
Standard	Rocky Mountain Fuel Co.	Lafayette	Sub-bituminous	35	47	7,028	300	300
Monarch No. 2	National Fuel Co.	Broomfield	Sub-bituminous	148.8	113	92,302	700	700
Hi-Way	Louisville-Lafayette Coal Co.	Louisville	Sub-bituminous	162	114	84,889	700	700
Black Diamond No. 2	Black Diamond Fuel Co.	Lafayette	Sub-bituminous	305	67	54,005	600	600
Crown	David Allan Coal Co.	Gorham	Sub-bituminous	210	76	53,117	500	500
Gorham	Domestic Coal Co.	Boulder	Sub-bituminous	207	14	8,184	100	100
Eldorado	El Dorado Coal Co.	Gorham	Sub-bituminous	187	8	5,888	60	60
Peerless	Peerless Coal Co.	Gorham	Sub-bituminous	228	7	5,907	75	75
Fireside	Ko-Z Coal Co.	Louisville	Sub-bituminous	298.5	9	5,478	.....	.....
High View	High View Coal Co.	Gorham	Sub-bituminous	174	6	4,462	60	60
New Ross	Ross Coal Co.	Louisville	Sub-bituminous	231	6	3,863	.....	.....
Pluto No. 2	Pluto Coal Co.	Superior	Sub-bituminous	183	8	3,503	50	50
Banner	Banner Coal Co.	Lafayette	Sub-bituminous	220	11	3,381	60	60
Arrow	Arrow Coal Co.	Superior	Sub-bituminous	135	7	2,446	60	60
Pittsburgh	Pittsburgh Coal Co.	Gorham	Sub-bituminous	158	3	1,161	20	20
Cactus	Cactus Coal Co.	Boulder	Sub-bituminous	271	2	996	20	20
Sunrise	Sunrise Coal Co.	Gorham	Sub-bituminous	70	4	900	.....	.....
North Slope No. 6	Mann & Hunziker	Boulder	Sub-bituminous	158	3	847	.....	.....
Paramount	Paramount Coal Co.	Lafayette	Sub-bituminous	52	4	517	7	7
Premiere	Claussen & Clarkson	Gorham	Sub-bituminous	120	3	322	8	8
Pine Cliff	Tri-State Coal Ass'n	Boulder	Sub-bituminous	90	4	255	10	10
Indio No. 2	J. D. Sloan	Gorham	Sub-bituminous	45	2	172	75	75
Albion	Albion Coal Co.	Gorham	Sub-bituminous	30	4	75	.....	.....
Number of Mines operated:	25			168	776	467,091		

DELTA COUNTY

King.....	Bowie.....	Bituminous.....	55	34	22,828	1000
Green Valley.....	Semi-bituminous.....	292	5	4,997	40	
Winton Coal Co.....	Sub-bituminous.....	251	3	3,583	75	
Red Canon.....	Semi-bituminous.....	242	4	3,163	40	
States.....	Semi-bituminous.....	171.5	3	1,750	100	
Red Mountain.....	Semi-bituminous.....	192	4	1,298	40	
Paonia.....	Semi-bituminous.....	95	2	1,667	30	
Western Star.....	Semi-bituminous.....	246	2	1,463	.....
Independent.....	Semi-bituminous.....	192	3	1,397	.....
Bennett.....	Sub-bituminous.....	209	2	865	12	
Black Diamond.....	Semi-bituminous.....	56	4	614	40	
Gelwick.....	Semi-bituminous.....	79	2	527	20	
Fitzsimmons.....	Semi-bituminous.....	89	2	527	20	
Converse.....	Semi-bituminous.....	154	1	509	10	
Rollins.....	Semi-bituminous.....	785	1	427	.....
Vowell.....	Sub-bituminous.....	80	2	150	10	
Burdick.....	Sub-bituminous.....	100	1	150	8	
Number of Mines operated: 17		115.1	75	45,921		

ELBERT COUNTY

Wright.....	Matheson.....	Sub-bituminous.....	213	2	2,693	50
Mascot.....	Matheson.....	Sub-bituminous.....	118	2	1,088	.....
Fondis.....	Fondis.....	Sub-bituminous.....	125	1	237	30
McFarley.....	Joseph McFarley.....	Sub-bituminous.....	180	1	160	2
Firestde.....	John Slama.....	Sub-bituminous.....	17	3	23	10
Number of Mines operated: 5		113.1	9	4,201		

TABLE D—1933—Continued.
EL PASO COUNTY

Name of Mine	Name of Company	Mine Post Office	Character of Coal	EL PASO COUNTY			FREMONT COUNTY		
				Average No. of Men Employed	Total No. of Miners	Per Min. Prod. of Tons	Capacity of Mine per Day, Tons	Mine per Day, Tons	Capacity of Mine per Day, Tons
Pikeview	Pikes Peak Fuel Co.	Colorado Springs	Sub-bituminous.....	201	161	206,710	11,000	103,923	1000
City Coal Mines	Colorado Springs Co.	Colorado Springs	Sub-bituminous.....	273	60	38,856	400	22,661	350
Corley	Corley Coal Co.	Colorado Springs	Sub-bituminous.....	276	31	23,859	300	49,663	400
Dixie	Corley Coal Co.	Colorado Springs	Sub-bituminous.....	132	6	1,697	100	42,269	500
Jimmy Camp	Thomas Mining Co.	Colorado Springs	Sub-bituminous.....	238	24	16,711	100	20,249	150
Altitude	Altitude Fuel Co.	Colorado Springs	Sub-bituminous.....	277	19	8,048	.....	15,788	100
Climax	Danville Coal Co.	Colorado Springs	Sub-bituminous.....	244	4	1,382	20	13,551	70
Busy Bee	Busy Bee Coal Co.	Colorado Springs	Sub-bituminous.....	52	10	9,277	50	36	55
Drennan	Drennan Coal Co.	Colorado Springs	Sub-bituminous.....	199	2	6,03	10	9,067	150
Kurie	Kurie Coal Co.	Colorado Springs	Sub-bituminous.....	96	6	921	.....	28	150
Rush	Rush	Rush	Sub-bituminous.....	30	4	113	15	8,361	75
Number of Mines operated: 11				230.8	327	299,827	.....	14	.....

FREMONT COUNTY—Continued

American Independent...	Florence.....	Semi-bituminous.....	228.5	17	8,093	30
South Magnet.....	Rockvale.....	Bituminous.....	150	22	7,472	—
Rocchio.	Coal Creek.....	Semi-bituminous.....	187	11	5,974	50
Ideal.....	Florence.....	Bituminous.....	250	15	5,759	15
Double Dick Coal Co.....	Florence.....	Bituminous.....	28	30	1,233	100
Double Dick.....						
Brookside.....						
Bald.....	Orecchio Coal M. Co.....	Semi-bituminous.....	170.8	13	5,756	30
Willie No. 3.....	Florence.....	Bituminous.....	208	13	4,771	50
Fawn Hollow.....	Florence.....	Semi-bituminous.....	196	6	3,055	25
Bluff Springs.....	Canon City.....	Bituminous.....	147	7	2,807	—
Canon Imperial.....	Florence.....	Bituminous.....	55	10	2,257	—
Kattling.....	Florence.....	Bituminous.....	162	7	1,682	10
Newlan Creek.....	Florence.....	Bituminous.....	190	4	1,385	—
Canon Liberty.....	Canon City.....	Bituminous.....	132	6	1,200	20
Royal Gorge.....	Canon City.....	Bituminous.....	158	5	1,193	20
Peacock.....	Ranson Coal Co.....	Bituminous.....	100	11	1,046	35
Willie No. 1.....	Florence.....	Bituminous.....	119	3	1,093	—
Willie No. 2.....	Florence.....	Bituminous.....	147	1	450	3
Brewster No. 2.....	Florence.....	Semi-bituminous.....	150	2	450	3
Rockley.....	Florence.....	Bituminous.....	265	2	421	2
Canon District No. 2.....	Rockvale.....	Bituminous.....	60	7	361	6
Bassick.....	Bassick Coal Co.....	Bituminous.....	14	10	270	25
Cuckoo No. 3.....	Cuckoo Coal Co.....	Bituminous.....	38	3	156	—
Digiacomo.....	Digiacomo Coal Co.....	Bituminous.....	154	2	150	1
Sunshine.....	Lloyd & Capella Coal Co.....	Bituminous.....	80	3	100	4
		Coal Creek.....	40	2	79	4
Number of Mines operated:.....	35.....					
			159.6	835	352,593	
GARFIELD COUNTY						
New Castle.....	W. G. McDonald.....	Bituminous.....	258	12	8,473	100
Carbonera.....	Gilson Asphaltum Co.....	Bituminous.....	164.5	8	6,923	50
North Midland.....	J. Q. McNatt.....	Bituminous.....	203	6	3,124	30
South Canon No. 1.....	South Canon Mine Leasing Co.....	Bituminous.....	25	10	1,699	—
South Canon No. 2.....	Glenwood Springs.....	Bituminous.....	122	4	742	15
Harvey Gap.....	Glenwood Springs.....	Bituminous.....				
Zieseniss.....	New Castle.....	Bituminous.....	179	3	1,108	7
	Rine.....	Bituminous.....	111	2	899	20

TABLE D—1933—Continued.
GARFIELD COUNTY—Continued

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Capacity of Mine, Tons per Day, Tons		
				Total Number of Employees	Average Number of Men Worked	Capacity per Mine per Day, Tons
Earnest	J. F. Swiglow	Glenwood Springs	Bituminous	102	3	892
North Canon	Rifle Coal Mines, Inc.	Rifle	Bituminous	180	2	878
Rauman		Rifle	Bituminous	224	3	860
Silt		Silt	Bituminous	105	2	672
Ohkraut	Glenwood Springs	Bituminous	Bituminous	117	1	614
Diamond	Glenwood Springs	Bituminous	Bituminous	295	2	399
Estes	Rifle	Bituminous	Bituminous	90	2	195
Paradise	Glenwood Springs	Bituminous	Bituminous	128	1	186
Keystone	New Castle	New Castle	Bituminous	100	2	123
Number of Mines operated:	16			156.9	63	27,787

GUNNISON COUNTY						
Crested Butte	Colorado Fuel & Iron Co.	Bituminous	Bituminous	127.4	207	152,570
Somerset	Calumet Fuel Co.	Bituminous	Semi-anthracite	115.7	98	115,680
Oliver	Oliver Coal Co.	Semi-anthracite	Semi-bituminous	143.5	54	49,528
Alpine	Rocky Mountain Fuel Co.	Semi-bituminous	Bituminous	118	60	34,234
Bulky No. 2	Crested Butte Coal Co.	Bituminous		193	28	30,093
Horace	Peter J. Diehl	Anthracite	Anthracite	90.5	60	10,539
Bear	Tony Bear	Bituminous	Bituminous	185	6	4,976
Hawks Nest	Somerset	Bituminous	Anthracite	170	3	2,218
Richardson	Gunnison	Anthracite	Semi-bituminous	175	4	1,894
Castle Rock	Gunnison	Semi-bituminous		211	2	1,236

GUNNISON COUNTY--Continued

Ohio Creek.....	Ohio Creek Coal Co.....	Gunnison.....	114	4	1,163	3
Carbon Creek.....	Carbon Creek Coal Co.....	Bituminous.....	203	2	726	
Hinkle.....	Gunnison.....	Bituminous.....	2	2	416	6
Baldwin Star.....	Gunnison.....	Semi-bituminous.....	120	2	400	10
Number of Mines operated: 14.....			115.7	632	405,673	

HUFERFANO COUNTY

Robinson No. 4.....	Colorado Fuel & Iron Co.....	Bituminous.....	196	239	204,444	1000
Kebler No. 2.....	Colorado Fuel & Iron Co.....	Bituminous.....	125	140	74,094	850
Alamo No. 1.....	Alamo Coal Co.....	Bituminous.....	196	52	1000	
Alamo No. 2.....	Barbour Coal Co.....	Bituminous.....	140.7	80	53,263	1000
Calumet No. 1.....	Calumet Fuel Co.....	Bituminous.....	77.7	86	34,873	500
Calumet No. 2.....	Calumet Fuel Co.....	Bituminous.....	6	73	1,518	
Gordon.....	Gordon Coal Co.....	Bituminous.....	194	54	36,263	400
Pryor.....	Pryor Coal M. Co.....	Bituminous.....	74.2	78	27,457	500
Ravenwood.....	Calliente Coal Co.....	Bituminous.....	102	78	26,164	400
Maitland.....	Calliente Coal Co.....	Bituminous.....	73	31	12,731	300
Vesta.....	Minnequa Fuel Co.....	Bituminous.....	149	28	17,612	300
Ojo Canon.....	Peachey Coal Co.....	Bituminous.....	225	38	16,285	100
C.O. D. No. 1.....	Peachey Coal Co.....	Bituminous.....	85	55	1,060	10
C.O. D. No. 2.....	Peachey Coal Co.....	Bituminous.....	40	3	1,393	4
Spanish Peak.....	W. A. Ream Coal Co.....	Bituminous.....	165	27	10,826	200
Toltec.....	Aztec Coal M. Co.....	Bituminous.....	77	35	10,216	150
Black Hawk.....	Black Hawk Coal Co.....	Bituminous.....	173	9	4,516	
Torrid.....	Torrid Coal Co.....	Bituminous.....	152	7	4,474	40
Leader No. 1.....	Leader Coal Co.....	Bituminous.....	113	5	1,393	
Leader No. 2.....	Bed Ash Coal Co.....	Bituminous.....	108	4	3,112	
Major.....	Walsenburg.....	Bituminous.....	87	14	3,177	75
Steve Matti & Sons.....	Walsenburg.....	Bituminous.....	120	7	1,600	20
Bunker Hill No. 1.....	Walsenburg.....	Bituminous.....	96	8	1,104	15
Bunker Hill No. 2.....	La Veta.....	Bituminous.....	247	7	1,425	
George No. 2.....	Walsenburg.....	Bituminous.....	139	3	1,055	
Caddell No. 1.....	P. & T. Coal Co.....	Bituminous.....				

HUERFANO COUNTY—Continued

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Average Men Employed	No. of Men Worked	Number of Days Worked	Total Number of Men Produced	Mine Days, Tons	Capacity of Day, Tons
Caddell No. 3.....	Caddell Coal Co.	Walsenburg.....	Bituminous.....	158	6	1,017	10		
Strawberry.....	Strawberry Coal Co.	Toltec.....	Bituminous.....	150	3	800	15		
Round Oak.....	Giordino Coal Co.	Walsenburg.....	Bituminous.....	250	2	785	3		
Murrell.....	James Murrell.....	La Veta.....	Bituminous.....	220	3	667	3		
Spring Canon.....	Prosperity Coal Co.	Walsenburg.....	Bituminous.....	230	2	373	15		
Round Cap.....	Bartuelo & Barte Coal Co.	Walsenburg.....	Bituminous.....	60	2	140	3		
	Number of Mines operated:	31			139	1,129	581,058		
JACKSON COUNTY									
Moore No. 1 & Moore Strip Pit.....	North Park Coal.....	Coalmont.....	Sub-bituminous.....	183	26	26,105	700		
Mart.....	Geo. M. Barnell.....	Walden.....	Sub-bituminous.....	132	4	1,839	50		
Conrad.....	Geo. M. Barnell.....	Walden.....	Sub-bituminous.....	28	1	63	.....	
	Number of Mines operated:	3.....			171.4	31	28,007		
JEFFERSON COUNTY									
Leyden No. 3.....	Leyden Lignite Co.	Leyden.....	Sub-bituminous.....	237	98	121,260	750		
Unity.....	Unity Coal Co.	Littleton.....	Sub-bituminous.....	295	23	11,135	40		
Littleton Valley.....	Littleton Valley Coal Co.	Littleton.....	Sub-bituminous.....	237	22	7,067	50		
Virginia.....	Jefferson Coal Co.	Littleton.....	Sub-bituminous.....	124	11	2,294	30		
Van Winkle.....	Van Winkle Coal Co.	Golden.....	Sub-bituminous.....	120	11	832	11		
Denney.....	Denney Mining Co.	Golden.....	Sub-bituminous.....	90	4	380	.....	
Blue Bird No. 2.....	L. H. Benster.....	Morrison.....	Sub-bituminous.....	60	4	75	3		
	Number of Mines operated:	7.....			222.7	173	143,043		

LA PLATA COUNTY

Castle.....	Durango.....	Bituminous.....	264	11	7,392	50
O. K. Coal Co.....	Durango.....	Bituminous.....	76	10	3,208	50
Sunshine.....	Durango.....	Bituminous.....	164	3	2,421	.....
Morning Star.....	Durango.....	Bituminous.....	71	6	1,831	25
Triangle.....	Durango.....	Bituminous.....	130	2	1,636	.....
Black Diamond.....	Durango.....	Bituminous.....	116	3	1,508	.....
Durango Coal Co.....	Durango.....	Bituminous.....	235	4	1,038	25
Wm. Hunt.....	Hesperus.....	Bituminous.....	168	2	1,017	8
Hunt.....	Durango.....	Bituminous.....	185	3	946	8
Superior.....	Mancos.....	Bituminous.....	178	2	977	.....
Valley View.....	Durango.....	Bituminous.....	91	2	834	.....
Peerless.....	Aztec, N. M.....	Bituminous.....	162	2	776	10
Soda Springs.....	Durango.....	Bituminous.....	200	3	746	10
Fire Glow.....	Hesperus.....	Bituminous.....	106	1	650	.....
Hay Gulch.....	Bayfield.....	Bituminous.....	160.5	2	648	1
Shamrock.....	Zavier Dufur.....	Bituminous.....	150	1	446	10
Fort Lewis.....	Frank Tiporsch.....	Bituminous.....	104	1	382	.....
Tipotsch.....	Chas. Yingling.....	Bituminous.....	104	1	381	.....
Morning Glory.....	Chas. Baichelor.....	Bituminous.....	120	1	331	10
Excelsior.....	Frank Ellidge.....	Bituminous.....	130	2	186	1
Ellidge.....	Pine River Coal Co.....	Bituminous.....	75	1	136	10
Pine River.....	M. F. Leonard.....	Bituminous.....	42	1	103	.....
Hammond.....	Number of Mines operated: 22.....		152.7	64	27,593	

LARIMER COUNTY

Hackman No. 1.....	Hackman Coal Co.....	Cheyenne, Wyo.....	Sub-bituminous.....	221	4	2,278	.....
Benson.....	Lowe Coal Co.....	Carr.....	Sub-bituminous.....	188	5	1,640	25
Ayshire.....	Ayshire Coal Co.....	Carr.....	Sub-bituminous.....	99	2	515	15
Pioneer.....	Walter Overcamp.....	Carr.....	Sub-bituminous.....	175	3	354	2
White Rose.....	White Rose Coal Co.....	Carr.....	Sub-bituminous.....	90	2	300	10
Bachy.....	Bachy Coal Co.....	Carr.....	Sub-bituminous.....	60	2	223	10
Number of Mines operated: 6.....				158.1	18	5,310	

TABLE D—1933—Continued.
LAS ANIMAS COUNTY

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Number of Days Worked	Average No. of Men Employed	Total Number of Men Produced per Month	Mine per Day, Tons	Capacity of Mine per Day, Tons
Frederick.....	Colorado Fuel & Iron Co.	Valdez.....	Bituminous.....	149	241	190,747	2400	
Morley.....	Colorado Fuel & Iron Co.	Morley.....	Bituminous.....	64.7	268	88,488	1800	
Delagua.....	Victor-American Fuel Co.	Delagua.....	Bituminous.....	121.5	338	172,917	1800	
Boncarbo.....	American Smelting & Ref. Co.	Cokedale.....	Bituminous.....	103	107	84,889	1200	
Brothead No. 9.....	Temple Fuel Co.	Brothead.....	Bituminous.....	170.5	135	67,206	500	
Kenneth.....	Vickers Coal Co.	Rugby.....	Bituminous.....	160	87	58,007	500	
Ludlow.....	Huerfano Coal Co.	Ludlow.....	Bituminous.....	103.4	142	50,047	600	
Creston.....	Jewell Coal & Coke Corp.	Aguilar.....	Bituminous.....	174	140	26,983	150	
Empire.....	Empire Coal M. Co.	Aguilar.....	Bituminous.....	49.8	51	21,171	600	
Dix.....	Dick Coal Co.	Dicks.....	Bituminous.....	79	24	15,238	300	
Rapson.....	Micheli.....	Rapson.....	Bituminous.....	168	27	12,056	200	
Sopris No. 1.....	Deidesso Co. Coal Co.	Sopris.....	Bituminous.....	115.5	22	10,145	65	
Engle.....	Deidesso Co. Coal Co.	Trinidad.....	Bituminous.....	114	5	2,756	33	
Bear Canon No. 6.....	Bear Canon Coal Co.	Vallorso.....	Bituminous.....	50	32	8,835	1000	
Thor.....	Thor Fuel Co.	Trinidad.....	Bituminous.....	29.8	36	6,810	280	
Eureka.....	Phoenix Fuel Co.	Dicks.....	Bituminous.....	65	43	6,613	150	
Niggerhead.....	Niggerhead Mining Co.	Aguilar.....	Bituminous.....	112.5	21	6,613	120	
Jeffries.....	Jeffries Fuel Co.	Trinidad.....	Bituminous.....	313	9	6,024	40	
Bowen.....	Home Fuel & Supply Co.	Trinidad.....	Bituminous.....	146	5	2,616	25	
Gem.....	Gem Coal Co.	Aguilar.....	Bituminous.....	229	6	2,314	15	
Frisco.....	Frisco Coal Co.	Trinidad.....	Bituminous.....	170	5	2,289	...	
Forbes No. 9.....	W. E. Riggs.	Trinidad.....	Bituminous.....	237	5	2,138	10	
Daisy.....	Daisy Coal Co.	Aguilar.....	Bituminous.....	173	3	1,624	6	
Liberty.....	Liberty Coal Co.	Baldy Coal Co.	Bituminous.....	200	3	1,243	6	
Baldy.....	Trinidad.....	Trinidad.....	Bituminous.....	185	2	1,130	8	
Santa Fe.....	Santa Fe Coal Co.	Trinidad.....	Bituminous.....	79	4	985	10	
Crystal.....	Guillermo Bowman.	Dicks.....	Bituminous.....	100	2	826	6	
Lakeview.....	Nick Riegel.	Trinidad.....	Bituminous.....	160	2	632	15	

LAS ANIMAS COUNTY—Continued

Pickford.....	Trinidad.....	Bituminous.....	150	3	600	10
Red Ash.....	Trinidad.....	Bituminous.....	120	2	608	10
W. H. Owens.....	Trinidad.....	Bituminous.....	175	2	458	15
Joe Roggero.....	Trinidad.....	Bituminous.....	70	2	380	10
Ideal Coal Co.....	Trinidad.....	Bituminous.....	146	2	342	5
Martorano & Son.....	Trinidad.....	Bituminous.....	150	1	365	—
Jose Y. Buena.....	Trinidad.....	Bituminous.....	120	2	350	4
Lilyard Coal Co.....	Trinidad.....	Bituminous.....	—	—	—	—
Garcia.....	Trinidad.....	Bituminous.....	90	2	300	2
Martinez.....	Trinidad.....	Bituminous.....	183	2	263	—
Valley Coal Co.....	Sopris.....	Bituminous.....	100	2	261	—
Pritchard.....	Trinidad.....	Bituminous.....	53	2	245	4
Fishers Peak.....	Trinidad.....	Bituminous.....	111	1	242	—
Tucker.....	Trinidad.....	Bituminous.....	75	2	261	3
A. D. Tucker.....	Rapson.....	Bituminous.....	50	2	226	94
Wiley.....	Trinidad.....	Bituminous.....	82	2	181	20
O. C. Cook.....	Trinidad.....	Bituminous.....	75	1	152	—
Standard Coal Co.....	Trinidad.....	Bituminous.....	200	2	162	—
Trinidad Coal Co.....	Trinidad.....	Bituminous.....	—	—	—	—
La. Belle.....	Wm. Morgan.....	Bituminous.....	15	6	120	—
Hernandez.....	J. D. Hernandez.....	Bituminous.....	90	2	152	1
Chay.....	Louis Chay.....	Bituminous.....	90	1	100	2
Stonewall.....	Valdez.....	Bituminous.....	90	1	99	4
Salvador.....	Weston.....	Bituminous.....	42	2	89	10
Sarcillo Canon.....	Cokedale.....	Bituminous.....	—	—	—	—
Sanchez.....	Trinidad.....	Bituminous.....	11	2	42	5
Dementeo Sanchez.....	Boncarbo.....	Bituminous.....	26	1	50	2
Number of Mines operated: 52			114.7	1712	857,290	—

MESA COUNTY

Cameo.....	Cameo.....	Semi-bituminous.....	95.5	45	31,592	600
Mt. Garfield.....	Palisade.....	Semi-bituminous.....	274	8	7,849	75
Garfield.....	Palisade.....	Semi-bituminous.....	167	8	4,772	—
Palisade.....	Fruita.....	Semi-bituminous.....	140	10	4,707	100
Stove Canon.....	Cameo.....	Bituminous.....	162.8	4	2,836	40
P. V.....	Palisade.....	Bituminous.....	160	2	2,172	18
Winger.....	Clarke Coal Co.....	Bituminous.....	145	4	2,135	30

TABLE D—1933—Continued.
MESA COUNTY—Continued

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Number of Days Worked	Average Number of Men Employed	Total Number of Miners Produced	Mine per Day, Tons	Capacity of Mine per Day, Tons
Hidden Treasure	Hidden Treasure Coal Co.	Fruita	Bituminous	106	5	2,121	40	
Stokes	W. D. Stokes	Palisade	Semi-bituminous	117	4	1,770	80	
McGinley	William McGinley	Grand Junction	Bituminous	202	2	1,693	30	
Riverside	Riverside Coal Co.	Palisade	Semi-bituminous	153	6	1,692	—	
Farmers No. 1	Farmers-Mutual Coal Co.	Grand Junction	Bituminous	177.2	4	1,587	—	
Midwest	Midwest Red Arrow Coal Co.	Palisade	Bituminous	190	5	1,531	30	
Williams	Williams Coal Co.	Grand Junction	Bituminous	160	3	1,420	—	
Thomas	Thomas Coal Co.	Grand Junction	Bituminous	106	4	1,182	15	
Blue Flame	Blue Flame Coal Co.	Palisade	Semi-bituminous	210	2	1,500	20	
Hunter	J. B. Hunter	Fruita	Semi-bituminous	199	2	887	10	
Anchor No. 1	Anchor Coal Co.	Grand Junction	Bituminous	131	3	878	20	
Peacock	Peacock Coal Co.	Grand Junction	Bituminous	110	3	801	—	
Monger	Hiatt Coal Co.	Fruita	Semi-bituminous	122	2	922	—	
Mundell	J. W. Mundell	Grand Junction	Bituminous	250	3	780	—	
Coal Gulch	Coal Gulch Coal Co.	Loma	Semi-bituminous	104	2	549	10	
Marinelli	Marinelli Bros.	Fruita	Bituminous	200	2	348	6	
Nearing	Mesa County Quality Coal Co.	Fruita	Bituminous	107	2	294	—	
Grasso	Nunzio Grasso	Grand Junction	Bituminous	64	2	294	—	
Corcoran	W. M. Creggar	Grand Junction	Bituminous	117	3	279	—	
Ulice	Ulice Coal Ass'n	Loma	Bituminous	30	2	153	10	
Mt. Lincoln	Mt. Lincoln Coal Co.	Palisade	Semi-bituminous	16	3	90	—	
Big Tree	Big Tree Coal Co.	Grand Junction	Bituminous	25	2	85	—	
Number of Mines operated:	29			132.7	147	76,925		

MOFFAT COUNTY

Knez.....	Craig.....	Bituminous.....	195	2	1,695	.....
Collom.....	Axial.....	Bituminous.....	210	1	697	.....
Shaver.....	Axial.....	Bituminous.....	80	2	635	.....
Blair.....	Craig.....	Bituminous.....	100	2	475	.....
Hart.....	Craig.....	Bituminous.....	107	1	435	.....
Community.....	Craig.....	Bituminous.....	148	1	418	8
Wisconsin.....	Lay.....	Bituminous.....	100	1	216	.....
Wisconsin Coal Co.....	Craig.....	Bituminous.....	90	1	114	.....
Little Bear Coal Co.....	Craig.....	Bituminous.....	150	1	100	1
Sadrar.....	Hamilton.....	Bituminous.....	53	1	93	2
Whitlock.....	Maybell.....	Bituminous.....	30	1	45	.....
Shelton.....			117	14	4,923	.....
Number of Mines operated: 11						

MONTEZUMA COUNTY

Mancos Hill.....	Mancos.....	Semi-bituminous.....	162	4	1,303	25
Wilden.....	Mancos.....	Semi-bituminous.....	170	2	922	.....
Dolores.....	Dolores.....	Semi-bituminous.....	101	2	816	.....
Morris.....	Dolores.....	Semi-bituminous.....	360	2	775	.....
Spencer.....	Mancos.....	Semi-bituminous.....	239	2	762	.....
H. A. Alinsworth.....	Mancos.....	Semi-bituminous.....	122	2	440	.....
Mancos Coal & Lumber Co.....	Mancos.....	Semi-bituminous.....	84	2	235	.....
Wood & Black.....	Cortez.....	Semi-bituminous.....	25	3	155	.....
A. F. Hopper.....	Cortez.....	Semi-bituminous.....	45	2	150	.....
Bud Inc.....	Dolores.....	Semi-bituminous.....	60	1	60	.....
Sunnyside.....	Lebanon.....	Semi-bituminous.....	30	1	42	.....
George A. Greenwood.....			132.8	23	5,666	.....
Number of Mines operated: 11						

MONTROSE COUNTY

Liberty Bell.....	Nucla.....	Bituminous.....	250	2	738	6
Rice.....	Norwood.....	Bituminous.....	126	1	212	.....
Independence.....	Nucla.....	Bituminous.....	120	1	208	.....
Pleasant Valley.....	Nucla.....	Bituminous.....	78	1	156	2
Ute (Babel).....	Montrose.....	Bituminous.....	80	1	133	2
Number of Mines operated: 5			150.7	6	1,447	.....

TABLE D—1933—Continued.
OURAY COUNTY

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Average No. of Men Employed	Total Number of Days Worked	Total Number of Tons Produced per Day	Capacity of Mine per Day, Tons
Kennedy.....	H. A. Kennedy.....	Ridgway.....	Sub-bituminous.....	90	2	353	.....
Colona.....	Colona Coal Co.....	Montrose.....	Sub-bituminous.....	60	1	54	.....

Number of Mines operated: 2.....

PITKIN COUNTY

Placita.....	Hughes & McCann.....	Placita.....	Bituminous.....	138	3	1,674
Number of Mines operated: 1.....				138	3	1,674

RIO BLANCO COUNTY

New Pollard.....	C. F. Pollard.....	Bituminous.....	245	2	1,981	.....
Pollard.....	Electric Coal Co.....	Bituminous.....	237	2	1,791	50
McKee.....	Electric Coal Co.....	Bituminous.....	76	1	149	10
Reinau.....	R. C. Reinau.....	Bituminous.....	224	1	1,007	4
Nine Mile Hill.....	Thos. D. Foreman.....	Bituminous.....	150	1	799	5
Johnny Boy.....	Meeker.....	Bituminous.....	109	1	438	10
Lion Canon.....	Meeker.....	Bituminous.....	68	2	350	10
Piceance.....	Meeker.....	Bituminous.....	90	2	221	.....
Fairfield.....	Meeker.....	Bituminous.....	150	1	141	.....
Ford.....	Rio Blanco.....	Bituminous.....	40	2	76	5
Douglas Creek.....	Jones & Trachte.....	Bituminous.....	20	2	30	.....
Number of Mines operated: 11.....			120.8	18	6,983	.....

ROUTT COUNTY

Harris.....	Colorado & Utah Coal Co.	Mt. Harris	Bituminous	62.1	129	111,825	4000
Moffat 1 & 2.....	Moffat Coal Co.	Oak Creek	Bituminous	76	167	93,387	4000
Hayden No. 3.....	Hayden Coal Co.	Haybro.....	Bituminous	50.2	104	69,894	1500
Pinnacle.....	Pinnacle-Kemmerer Fuel Co.	Oak Creek	Bituminous	64.1	109	57,489	1500
Wadge.....	Victor-American Fuel Co.	Mt. Harris	Bituminous	22.3	24	11,722	1000
Keystone Coal Co.	Routt.....	Bituminous	Bituminous	77	63	38,430	1000
Bear River.....	Bear River.....	Bituminous	Bituminous	64	61	31,843	1000
P.K. No. 1.....	P.K. No. 1.....	Bituminous	Bituminous	61.1	38	18,485	400
McNeil.....	McNeil Coal Corp.	McGregor.....	Bituminous	70	35	13,454	200
Argo.....	Geo. T. Rolfe's.....	Oak Creek	Bituminous	201	7	6,907	50
Seven Points.....	Routt County Mining Co.	Philipsburg.....	Bituminous	77	12	2,226	75
Hayden Valley.....	Bear River.....	Hayden.....	Bituminous	179	2	1,308	15
Babson.....	Babson Coal Co.	Hayden.....	Bituminous	124.5	3	1,127	30
Butcher Knife.....	Big Five Coal Co.	Bear River.....	Bituminous	116	3	1,149	40
Ritchneg.....	Little Pinnacle Coal Co.	Bear River.....	Bituminous	92	2	860	10
Blue Spruce.....	W. L. Jones.....	Oak Creek	Bituminous	100	2	612	2
Premium.....	Bruth & Micheletti.....	Milner.....	Bituminous	72	2	390	50
Morgan.....	John Pollio, Jr.	Steamboat Springs.....	Bituminous	99	2	372	15
Amos.....	Amos Coal Co.	McGregor.....	Bituminous	114	1	263	-----
Jones.....	Jones Coal Co.	Bear River.....	Bituminous	48	2	148	-----
Chergo.....	Tom Chergo.....	Oak Creek	Bituminous	45	1	130	5
Webber.....	J. E. Webber.....	Pagoda.....	Bituminous	8	1	106	-----
Scott.....	Black Cat Coal Co.	Bear River.....	Bituminous	24	1	100	-----
Black Cat.....	Colorado Pinnacle Coal Co.	Steamboat Springs.....	Bituminous	20	2	97	-----
Zenith.....	Beaudette Coal Co.	Oak Creek	Bituminous	25	2	74	-----
Beaudette.....	Geo. Steel & Co.	Oak Creek	Bituminous	30	3	68	2
Apex.....	Kaspar Webberkirch.....	Hayden.....	Bituminous	15	2	47	-----
Fish Creek.....				8	1	25	-----
				66.1	781	468,538	
Number of Mines operated: 28.....							

SAN MIGUEL COUNTY

Keck-Reliance.....	A. E. Hardman & Son.....	Norwood.....	Bituminous	120	1	528	10
Elder.....	Elder Coal Co.	Norwood.....	Bituminous	158	2	348	10
Horton.....	Horton Coal Co.	Norwood.....	Semi-bituminous	90	1	196	-----
Gray.....	L. J. Gray.....	Norwood.....	Semi-bituminous	160	1	167	-----
Marrott.....	Wm. Marrott.....	Norwood.....	Semi-bituminous	90	1	150	-----
Number of Mines operated: 5.....				119.3	6	1,389	

TABLE D—1933—Continued.
WELD COUNTY

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Number of Days Worked	Average No. of Men Employed	Total Number of Tons Produced	Capacity of Mine per Day, Tons
Columbine.....	Rocky Mountain Fuel Co.	Serene.....	Sub-bituminous.....	228.8	230	273,291	1,600
Grant.....	Rocky Mountain Fuel Co.	Frederick.....	Sub-bituminous.....	248	107	12,266	1,000
Morrison.....	Clayton Coal Co.	Erie.....	Sub-bituminous.....	127	117	113,248	2,000
Clayton.....	Clayton Coal Co.	Erie.....	Sub-bituminous.....	90.5	145	93,089	2,000
Boulder Valley.....	Boulder Valley Coal Co.	Erie.....	Sub-bituminous.....	110	101	165,609	2,000
Puritan.....	National Fuel Co.	Frederick.....	Sub-bituminous.....	139.6	166	160,809	1,400
Imperial.....	Imperial Coal Co.	Erie.....	Sub-bituminous.....	162	119	118,872	1,500
Baum.....	Consolidated Coal & Coke Co.	Dacono.....	Sub-bituminous.....	162	112	99,451	500
Russell.....	W. E. Russell Coal Co.	Frederick.....	Sub-bituminous.....	163	74	96,033	600
Sterling.....	McNeil Coal Corp.	Dacono.....	Sub-bituminous.....	153.5	89	83,361	1,000
Shamrock.....	Shamrock Coal Co.	Frederick.....	Sub-bituminous.....	114	87	73,754	800
Liley.....	Liley Coal & Land Co.	Frederick.....	Sub-bituminous.....	219	43	48,327	350
Monroe.....	Monroe Coal Co.	Louisville.....	Sub-bituminous.....	259	15	10,211	100
Buddy.....	Buddy Coal Co.	LaSalle.....	Sub-bituminous.....	247	8	3,767	.....
White Ash.....	White Ash Coal Co.	LaSalle.....	Sub-bituminous.....	229	4	1,879	.....
Hill.....	L. W. Pickett.....	Briggsdale.....	Sub-bituminous.....	113	2	825	30
	Walter Casselman.....	LaSalle.....	Sub-bituminous.....	30	4	486	.....
	Number of Mines operated: 17				161.6	1,423	1,470,278

STATE OF COLORADO

Number of Counties Producing.....	26
Number of Mines Reporting.....	371
Number of Man-Days.....	139,5
Number of Men Employed in and About Mines.....	8,179
Total Tons Produced.....	5,284,872

TABLE D—1934.

SHOWING BY COUNTIES, MINES OPERATED, NAME OF OPERATOR AND ADDRESS OF MINE, CHARACTER OF COAL, NUMBER OF DAYS WORKED, AVERAGE NUMBER OF MEN EMPLOYED, TOTAL NUMBER OF TONS OF COAL PRODUCED IN 1934 AND CAPACITY OF MINE PER DAY IN TONS.

ADAMS COUNTY

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Average No. of Men Employed	Total Number of Men Employed	Capacity of Mine per Day, Tons
Rock Creek.....	Rock Creek Coal Co.....	Byers.....	Sub-bituminous.....	200 200	1 1	421 421

ARCHULETA COUNTY

Gallogo.....	Gerilo Gallegos.....	Pagosa Springs.....	Sub-bituminous.....	104	2	250
Nossaman.....	W. J. Nossaman.....	Pagosa Springs.....	Sub-bituminous.....	100	2	250
Cox.....	T. L. Cox.....	Pagosa Springs.....	Sub-bituminous.....	138	1	190
Bellino.....	Antonita & Bellino.....	Pagosa Junction.....	Sub-bituminous.....	130	2	190
McBroom.....	Chas. McBroom	Dyke.....	Sub-bituminous.....	20	1	37
Number of Mines operated : 5.....	.....	.....	.....	102.5	8	917

BOULDER COUNTY

Industrial.....	Rocky Mountain Fuel Co.....	Superior.....	Sub-bituminous.....	119.9	139	68,576
Vulcan.....	Rocky Mountain Fuel Co.....	Lafayette.....	Sub-bituminous.....	213.3	57	35,013
Standard.....	James Harris & Associates.....	Lafayette.....	Sub-bituminous.....	284	16	11,178
Monarch No. 2.....	National Fuel Co.....	Broomfield.....	Sub-bituminous.....	154.5	134	95,119
Hi-Way.....	Louisville-Lafayette Coal Co.....	Broomfield.....	Sub-bituminous.....	166	115	79,851
Crown.....	Gorham.....	Sub-bituminous.....	Sub-bituminous.....	270	93	68,684
Black Diamond No. 2.....	Boulder.....	Sub-bituminous.....	Sub-bituminous.....	295	58	48,378

TABLE D—1934—Continued.
BOULDER COUNTY—Continued

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Capacity of Mine per Day, Tons		
				Total Number of Mines Operated:	Average No. of Men Employed	Per Day, Tons
Pluto No. 2	Pluto Coal M. Co.	Superior	Sub-bituminous	260	15	13,006
Gorham No. 2	Domestic Coal Co.	Boulder	Sub-bituminous	154	14	9,367
Eldorado	Eldorado	Gorham	Sub-bituminous	247	10	7,340
High View	High View Coal Co.	Gorham	Sub-bituminous	227	8	6,731
Fireside	Ko-Z Coal Co.	Louisville	Sub-bituminous	236	11	5,836
Lewis No. 2 (Peerless)	Hi-Carbon Coal Co.	Gorham	Sub-bituminous	138	13	4,852
Arrow	Arrow Coal Co.	Gorham	Sub-bituminous	221	9	4,144
New Ross	Ross Coal Co.	Louisville	Sub-bituminous	269	8	3,524
Eagle	Eagle Coal Co.	Gorham	Sub-bituminous	71	4	3,038
Paramount	Paramount Coal Co.	Lafayette	Sub-bituminous	205	4	1,839
Red Ash No. 2	Pittsburgh Coal Co.	Gorham	Sub-bituminous	162	4	1,350
Premier	Premier Coal Co.	Boulder	Sub-bituminous	100	4	1,250
Cactus	Cactus Coal Co.	Boulder	Sub-bituminous	220	2	1,140
Banner	Banner Coal Co.	Gorham	Sub-bituminous	44	14	904
Pine Cliff	Tri-State Coal Association	Boulder	Sub-bituminous	212	4	773
Northern	Northern Coal Co.	Gorham	Sub-bituminous	96	3	721
Number of Mines operated:				139.3	739	462,614
DELTA COUNTY						
King	Juanita Coal & Coke Co.	Bowie	Bituminous	76	35	21,705
Green Valley	Green Valley Coal Co.	Cedaredge	Sub-bituminous	263	5	3,764
Red Canon	Red Canon Coal Co.	Cedaredge	Sub-bituminous	234.5	4	2,966
Winton	Winton Coal Co.	Austin	Sub-bituminous	154	3	2,343
Paonia	Paonia-Farmers Coal Co.	Paonia	Sub-bituminous	191	2	2,179

DELTA COUNTY—Continued

Black Diamond Coal Co.	Cedaredge.	Sub-bituminous	100	2	1,100	50
Independent Coal Co.	Cedaredge.	Sub-bituminous	137	3	966	50
Red Mountain.	Cedaredge.	Sub-bituminous	151	3	903	40
States Hall Coal Co.	Cedaredge.	Sub-bituminous	99	2	900	100
States Hall Coal Co.	Delta.	Sub-bituminous	156	1	402	.....
Rollins.						
Fitzsimmons.	Paonia.	Sub-bituminous	96	2	395	5
Bennett.	Hotchkiss.	Sub-bituminous	98	1	390	25
Western Star.	Cedaredge.	Sub-bituminous	70	1	276	.....
Converse.	Paonia.	Sub-bituminous	126	1	263	3
Gelwick.	Hotchkiss.	Sub-bituminous	25	1	81	.....
Vowell (Leroux Creek) ...	Lazeer.	Sub-bituminous	30	1	40	10
Number of Mines operated : 16			116	67	38,673	

ELBERT COUNTY

Wright.	Barker.	Sub-bituminous	212	2	2,196	50
Jordan.	Guy Jordan.	Sub-bituminous	120	3	1,507	50
Mascot.	Mascot Coal, Oil & Clay Co.	Sub-bituminous	107	2	508	50
Fondis.	Fondis Coal Co.	Sub-bituminous	190	1	270	.....
Beaver Valley.	J. M. Dairymple & Son.	Sub-bituminous	19	4	200	.....
White Ash.	D. F. Shea.	Sub-bituminous	176	3	1,316	.....
Number of Mines operated : 6			119.5	15	5,997	

EL PASO COUNTY

Pikeview.	Pikes Peak Fuel Co.	Sub-bituminous	232	162	208,677	1,200
City Coal Mines.	Colorado Springs.	Sub-bituminous	281	63	34,765	1,400
Altitude.	Colorado Springs.	Sub-bituminous	312	19	12,073	.....
Jimmy Camp.	Colorado Springs.	Sub-bituminous	239.5	22	11,929	100
Corley No. 1.	Colorado Springs.	Sub-bituminous	108	21	8,089	.....
Corley Coal Co.	Colorado Springs.	Sub-bituminous	275	11	6,297	150
Busy Bee.	Colorado Springs.	Sub-bituminous	306	6	4,331	50

TABLE D—1934—Continued.
EL PASO COUNTY—Continued

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Averag e No. of Men Employed	Total Num- ber of Miners Produced	Miners per Day, Tons	Capacity of Mine per Day, Tons
New Keystone.....	John Streenan	Colorado Springs.....	Sub-bituminous.....	188	9	3,701	20
Climax.....	Danville Coal Co.....	Colorado Springs.....	Sub-bituminous.....	236	3	2,289	9
Drennan.....	Drennan Coal Co.....	Colorado Springs.....	Sub-bituminous.....	163	2	673	10
Rush.....	Guy McPherson.....	Rush.....	Sub-bituminous.....	120	3	438	10
Number of Mines operated : 11.....				222.5	321	293,262	—

FREMONT COUNTY								
Chandler.....	Victor-American Fuel Co.....	Bituminous.....	168	290	118,312	800		
Rockvale.....	Colorado Fuel & Iron Co.....	Bituminous.....	256.4	59	43,703	460		
Cedar Black Diamond.....	Canon Black Diamond Coal Co.....	Bituminous.....	297	27	23,630	150		
Cedar Canon.....	Guiliano & Carpine.....	Bituminous.....	182	28	22,433	—		
Canon Monarch.....	Canon Monarch Coal Co.....	Bituminous.....	195	27	20,079	—		
Double Dick.....	Double Dick Coal Co.....	Bituminous.....	232	26	19,949	—		
Caldirola.....	Caldirola Coal Co.....	Florence.....	213	18	17,237	160		
American Independent.....	American Independent Coal Co.....	Florence.....	186	25	11,609	96		
Canon.....	Canon-Reliance Coal Co.....	Florence.....	25	107	9,892	360		
Rocchio.....	Rocchio Coal Co.....	Coal Creek.....	219	13	8,346	60		
Nushuft.....	E. B. Cribbs.....	Bituminous.....	99	19	7,958	100		
Rockvale No. 2.....	E. B. Cribbs.....	Bituminous.....	48	43	5,205	—		
Royal Gorge.....	Royal Gorge Coal Co.....	Canon City.....	197	18	7,363	90		
Griffiths.....	Griffiths Coal M. Co.....	Canon City.....	179	11	5,668	—		
Bald.....	J. Bald Coal Co.....	Florence.....	150	13	4,635	60		
Fawn Hollow.....	Fawn Hollow Coal Co.....	Canon City.....	171	12	4,090	26		
Bluff Springs.....	Bluff Springs Leasing Co.....	Florence.....	163	28	7,807	—		

FREMONT COUNTY—Continued

GARFIELD COUNTY

W. G. McDonald	New Castle	Bituminous	248	11	13,090	200
Gilson Asphaltum Co.	Mack	Bituminous	161.9	10	6,670	50
Harvey Gap Coal Co.	Silt	Bituminous	262	4	1,877	7
South Canon Mine L. Co.	Glenwood Springs	Bituminous	119	10	1,436	70
Henry Zieseniss	Rifle	Bituminous	142.5	2	958	10
Llewellyn Coal Co.	Silt	Bituminous	148	3	929	20
Estes Bros.	Rifle	Bituminous	250	2	733	...
J. L. McNatt	Glenwood Springs	Bituminous	78	3	674	8
Rauman Coal Co.	Rifle	Bituminous	173	2	588	10
Frank De Boy	Glenwood Springs	Bituminous	152	1	351	...
Llewellyn (Silt)	Rifle	Bituminous	66	2	334	...
Estes	Glenwood Springs	Bituminous	146	1	242	...
Berglund	Ora W. Estes				173.2	51
Paradise	Angelo Paradise					27,882
Number of Mines operated :		12				

TABLE D—1934—Continued.

GUNNISON COUNTY

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Number of Days Worked	Average Men Employed	Total Number of Miners Produced	Capacity per Day, Tons
Somerset							
Crested Butte	Calumet Fuel Co.		Bituminous	161	110	160,052	1,200
	Colorado Fuel & Iron Co.	Crested Butte	Bituminous	123.9	219	154,578	.....
Oliver	Oliver Coal Co.	Somerset	Semi-anthracite	190	55	60,837	600
Bulkeley No. 2	Crested Butte Coal Co.		Bituminous	221	34	29,998	200
Alpine	Rocky Mountain Fuel Co.	Baldwin	Semi-bituminous	104	61	29,931	350
Bear	Bear Coal & Coke Co.	Somerset	Bituminous	149	11	7,110	.....
Richardson	Mt. Carbon Anthracite Co.	Gunnison	Anthracite	178	10	3,369	20
Horace	Horace Anthracite Co.	Crested Butte	Anthracite	177	15	3,947	25
Hawkin Nest	Clement Aulin	Somerset	Bituminous	157	3	3,170	18
Lone Pine	Lone Pine Coal Co.	Somerset	Bituminous	161	3	1,209	20
Ohio Creek	Ohio Creek Coal Co.	Gunnison	Bituminous	122	3	1,209	25
Baldwin	Baldwin Fuel Co.	Baldwin	Semi-bituminous	85	2	850	10
Carbon Creek	Wm. Waugh	Gunnison	Bituminous	217	2	786	4
Castle Rock	Castle Rock Coal Co.	Gunnison	Bituminous	168	2	659	12
Hinkle	Wade Whitt.	Gunnison	Bituminous	114	1	366	8
Number of Mines operated: 15				150	531	447,971	.....

HUFERFANO COUNTY

Robinson No. 4	Colorado Fuel & Iron Co.	Farr	Bituminous	196.9	210	185,312	1,000
Kehler No. 2	Alamo Coal Co.	Ploga	Bituminous	192.8	140	98,482	850
Alamo No. 1	Barbour Coal Co.	Alamo	Bituminous	207	96	52,958	1,000
Alamo No. 2	Calumet Fuel Co.	Alamo	Bituminous	93	100	38,483	1,000
Calumet No. 2	Delcarbon	Delcarbon	Bituminous	129.1	86	50,397	600

HUERFANO COUNTY—Continued

Gordon	Gordon Coal Co.	Bituminous	222	68	43,266	400
Ravenwood	Ravenwood	Bituminous	159	81	33,848	215
Maitland	Maitland	Bituminous	47	43	9,549	210
Pryor	Pryor Coal M. Co.	Bituminous	98.6	71	26,221	500
Ojo Canon	Peachey Coal Co.	Bituminous	.221	37	14,431	100
Toltec	Toltec	Bituminous	99	35	11,179	150
Leader No. 2	Walsenburg	Bituminous	266	14	8,570	45
Vista	Walsenburg	Bituminous	339	29	8,090	300
Torrid	Walsenburg	Bituminous	167.5	13	7,144	75
Major	Walsenburg	Bituminous	183	9	5,935	60
Black Hawk	Black Hawk Coal M. Co.	Bituminous	118	9	2,418	20
Spanish Peak	W. A. Ream Coal Co.	Bituminous	22	46	2,751	150
Bunker Hill No. 1	Steve Mattiv & Son	Bituminous	98	12	1,639	50
Bunker Hill No. 2	Sowers Coal Co.	Bituminous	116	2	880	—
Round Oak	Giordano Coal Co.	Bituminous	205	5	1,306	10
Spring Canon	Spring Canon Coal Co.	Bituminous	208	3	1,139	3
Caddell No. 1	Walsenburg	Bituminous	62	3	505	—
Caddell No. 3	Walsenburg	Bituminous	161	5	978	—
George No. 2	La Veta	Bituminous	192	4	837	—
Shamrock	Tioga	Bituminous	200	2	650	10
Murrell	La Veta	Bituminous	105	2	551	3
Strawberry	Toltec	Bituminous	19	5	105	5
Number of Mines operated : 27			158.2	1,130	607,624	—

JACKSON COUNTY

Rabbitear (Moore) Marr.	North Park Fuel Co.	Coalmont	Sub-bituminous	153	33	22,748	220
	Geo. M. Barnell.	Walden	Sub-bituminous	193	4	1,910	30
Number of Mines operated : 2				159.1	37	24,658	—

TABLE D—1934—Continued.
JEFFERSON COUNTY

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Produced			Capacity of Mine per Day, Tons
				Average No. of Men Employed	Number of Days Worked	Total Number of Days Worked	
Leyden No. 3	Leyden Lignite Co.	Leyden via Golden	Sub-bituminous	190.3	113	117,783	750
Virginia	Jefferson Coal Co.	Littleton	Sub-bituminous	299	9	8,173	40
Unity	Wild Cat Leasing Co.	Littleton	Sub-bituminous	255	7	4,467	50
Christensen	Littleton Valley Coal Co.	Littleton	Sub-bituminous	552	30	2,871	.....
Van Winkle	Van Winkle Coal Co.	Golden	Sub-bituminous	238	4	2,372	25
Caprock	Caprock Fuel Co.	Ravenwood	Sub-bituminous	22	17	818	30
Denney	Denney Coal Co.	Golden	Sub-bituminous	73	2	213	.....
Blue Bird	L. A. Benster	Morrison	Sub-bituminous	31	2	111	.....
Number of Mines operated: 8				157.9	184	136,808	
LA PLATA COUNTY							
Castle	Castle Coal M. Corp.	Durango	Semi-bituminous	259	7	5,721	150
O. K.	O. K. Coal Co.	Durango	Bituminous	69	8	2,467	50
Sunshine	Sunshine Coal Co.	Durango	Bituminous	187	2	2,033	.....
Morning Star	Baudino & Co.	Durango	Bituminous	93	3	1,640	17
Durango	Durango Coal Co.	Durango	Bituminous	235	4	1,421	50
Fire Glow	George Brown	Durango	Bituminous	206.5	2	1,412	15
Hay Gulch	H. J. Rasmussen	Durango	Bituminous	190	1	1,251	.....
Valley View	Valley View Coal Co.	Mancos	Bituminous	149	2	1,100	.....
Black Diamond	Black Diamond Coal Co.	Durango	Bituminous	185	3	1,068	75
Superior	Superior Fuel Co.	Durango	Bituminous	139	2	1,007	.....
Triangle	Triangle Coal Co.	Durango	Bituminous	185.5	1	763	20
Peerless	Peerless Coal Co.	Durango	Bituminous	80	2	731	9
Morning Glory	Chas. Yingling	Bayfield	Bituminous	118	1	552	5

LA PLATA COUNTY—Continued

Tipotsch.....	Frank Tipotsch.....	Hesperus.....	Bituminous.....	114	2	534	.....
Shamrock.....	James A. Blaer.....	Bayfield.....	Bituminous.....	149	2	390	.....
Excellisior.....	Chas. Batcheler.....	Bayfield.....	Bituminous.....	96	2	366	10
Hunt.....	Wm. Hunt.....	Hesperus.....	Bituminous.....	48	2	263	8
Elledges.....	Frank Elledges.....	Durango.....	Bituminous.....	70	2	209	.....
Hammond.....	M. F. Leonard.....	Bayfield.....	Bituminous.....	34	1	185	.....
Ft. Lewis.....	Xavier Dufur.....	Kline.....	Bituminous.....	74	1	159	.....
Pine River.....	Pine River Coal Co.....	Bayfield.....	Bituminous.....	135	1	240	10
Henderson.....	J. B. Henderson.....	Hesperus.....	Bituminous.....	21	3	112	.....
Soda Springs.....	A. F. Visage.....	Kirtland (N. Mex.).....	Bituminous.....	20	2	114	.....
Number of Mines operated: 23.....				133.1	56	23,638	

LARIMER COUNTY

Hackman No. 1.....	Hackman Coal Co.....	Carr.....	Sub-bituminous.....	178	3	2,037	30
Benson.....	Lowe Coal Co.....	Carr.....	Sub-bituminous.....	124	5	1,208	15
Bachy.....	Bachy Coal Co.....	Carr.....	Sub-bituminous.....	200	1	250	10
Ayrshire.....	Ayrshire Coal Co.....	Carr.....	Sub-bituminous.....	32	2	206	.....
Number of Mines operated: 4.....				128.9	11	3,701	

LAS ANIMAS COUNTY

Frederick.....	Colorado Fuel & Iron Co.....	Valdez.....	Bituminous.....	182.7	245	241,520	1,250
Morley.....	Colorado Fuel & Iron Co.....	Morley.....	Bituminous.....	73.9	210	74,344	800
Delagua.....	Victor-American Fuel Co.....	Delagua.....	Bituminous.....	136	297	171,509	1,800
Boncarbo.....	American Smelting & Ref. Co.....	Cokedale.....	Bituminous.....	84	126	82,804	1,500
Brothead No. 9.....	Temple Fuel Co.....	Brothead.....	Bituminous.....	218.3	109	64,326	400
Kenneth.....	Vickers Coal Co.....	Rugby.....	Bituminous.....	136	89	41,740	500
Ludlow.....	Huerfano Coal Co.....	Ludlow.....	Bituminous.....	112	122	46,182	600
Empire.....	Empire Coal M. Co.....	Aguilar.....	Bituminous.....	89.8	54	27,896	400
Creston.....	Jewel Collieries Corp.....	Aguilar.....	Bituminous.....	111	50	19,776	250
Dix.....	Dick Coal Co.....	Dix.....	Bituminous.....	123	26	16,697	175

TABLE D—1934—Continued.
LAS ANIMAS COUNTY—Continued

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Number of Days Worked	Average No. of Men Employed	Total Number of Employees per Day	Mine per Day, Tons
Bear Canon No. 6	Bear Canon Coal Co.		Bituminous	56	40	14,358	1,000
Rapson	Pio Micheli	Rapson	Bituminous	152	23	13,471	300
Sopris No. 1	Deldosso Coal Co.	Sopris	Bituminous	94.5	18	7,670	40
Engle	Deldosso Coal Co.	Trinidad	Bituminous	86	6	8,277	20
Niggehead	Niggehead Mining Co.	Aguilar	Bituminous	93.5	33	6,223	50
Thor	Thor Fuel Co.	Trinidad	Bituminous	76.6	16	5,692	100
Eureka (Anchor)	Phoenix Fuel Co.	Dicks	Bituminous	38	44	4,076	100
Jeffryes	Jeffryes Fuel Co.	Trinidad	Bituminous	133	12	2,898	75
Bowen	Home Fuel & Supply Co.	Trinidad	Bituminous	154	4	2,855	30
Frisco	Frisco Coal Co.	Trinidad	Bituminous	158	5	2,014	13
Daisy	Daisy Coal Co.	Aguilar	Bituminous	193	3	1,843	...
Gen.	Gem Coal Co.	Aguilar	Bituminous	148	4	1,636	20
Forbes No. 9	E. Bigges	Trinidad	Bituminous	76	4	1,041	5
Santa Fe	Santa Fe Coal Co.	Trinidad	Bituminous	217	3	1,104	6
Liberty	Liberty Coal Co.	Aguilar	Bituminous	142	2	999	...
Flag	Joe Roggero	Trinidad	Bituminous	200	1	871	10
Burro Canon	Demetrio Sanchez	Boncarbo	Bituminous	180	2	720	4
Star	Eugene West	Rugby	Bituminous	102	2	689	...
Owen	W. H. Owen	Trinidad	Bituminous	120	2	685	...
Crystal	Bowman & Son	Dicks	Bituminous	300	2	641	3
Tucker	Sunrise Coal Co.	Trinidad	Bituminous	175	2	659	25
Baldy	Baldy Coal Co.	Trinidad	Bituminous	80	3	511	...
Midnight	Midnight Coal Co.	Walsenburg	Bituminous	74	3	471	10
J. M.	Trinidad Supply Coal Co.	Trinidad	Bituminous	106	2	493	...
Fishers Peak	Walter Marsh	Trinidad	Bituminous	113	1	435	...
Martorano	M. Martorano & Son		Bituminous	90	2	433	...
Bagley	Ideal Coal Co.	Trinidad	Bituminous	150	2	299	10

LAS ANIMAS COUNTY—Continued

Rainbow.....	Trinidad.....	Bituminous.....	90	3	250	14
Trujillo.....	Valdez.....	Bituminous.....	40	3	250	6
Beshaar.....	Trinidad.....	Bituminous.....	40	2	203	10
Pritchard.....	Trinidad.....	Bituminous.....	200	2	231	10
Wiley.....	Cokedale.....	Bituminous.....	71	2	191	.....
Martinez.....	Cokedale.....	Bituminous.....	136	1	190	1
Bueno.....	Trinidad.....	Bituminous.....	155	2	180	5
Fairview.....	Sopris.....	Bituminous.....	65	2	176	.....
Garcia.....	Boncarbo.....	Bituminous.....	90	1	150	.....
Peacock.....	Trinidad.....	Bituminous.....	90	2	144	10
Stonewall.....	Weston.....	Bituminous.....	100	1	100	1
Jackson.....	Trinidad.....	Bituminous.....	100	1	100	.....
			126.5	1,591	863,472	.....
Number of Mines operated : 49.						

MESA COUNTY

Cameo.....	Camco.....	Semi-bituminous.....	138	41	22,748	600
Mt. Garfield.....	Palisade.....	Semi-bituminous.....	201	8	6,646	50
Palisade.....	Palisade.....	Semi-bituminous.....	155	16	5,090	100
Garfield.....	Palisade.....	Semi-bituminous.....	138	19	3,204	.....
Winger.....	Palisade.....	Semi-bituminous.....	112.5	3	2,452	50
Blue Flame.....	Palisade.....	Semi-bituminous.....	120	4	2,519	20
Stove Canon Coal Co.....	Fruita.....	Semi-bituminous.....	139	3	1,625	40
Riverview Coal Co.....	Camco.....	Semi-bituminous.....	190	3	1,955	10
Midwest Red Arrow Coal Co.....	Palisade.....	Semi-bituminous.....	135	5	1,778	40
McGinley.....	Grand Junction.....	Bituminous.....	187	2	1,659	25
Thomas.....	Grand Junction.....	Bituminous.....	147	4	1,661	15
Riverside.....	Palisade.....	Semi-bituminous.....	142	5	1,501	.....
Hidden Treasure.....	Fruita.....	Semi-bituminous.....	125	2	1,007	50
Williams.....	Grand Junction.....	Semi-bituminous.....	112	3	1,067	.....
Mundell.....	Grand Junction.....	Semi-bituminous.....	50	2	1,041	5
Hunter.....	Fruita.....	Semi-bituminous.....	175	2	959	.....
Stokes.....	Palisade.....	Semi-bituminous.....	170	3	938	50
Farmer No. 1.....	Grand Junction.....	Semi-bituminous.....	206	2	809	25

TABLE D—1934—Continued.
MESA COUNTY—Continued

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Capacity of Mine per Day, Tons		
				Average No. of Mines Operated	Total Number of Mines Operated	Capacity per Day, Tons
Garry	Garry Coal Co.	Fruita	Semi-bituminous	259	2	640
Nearing	Mesa County Quality Coal Co.	Fruita	Semi-bituminous	157	3	633
Peacock	Peacock Coal Co.	Grand Junction	Semi-bituminous	180	2	598
Anchor	Anchor Coal Co.	Grand Junction	Semi-bituminous	148	2	542
Corcoran	Joe Worthington	Grand Junction	Semi-bituminous	120	1	400
Jarvis	Clarence Allen	Grand Junction	Semi-bituminous	60	2	154
Coal Gulch	Coal Gulch Coal Co.	Loma	Semi-bituminous	60	1	162
Mt. Lincoln	Mt. Lincoln Coal Co.	Palisade	Semi-bituminous	90	2	150
Marinelli	Mike Marinelli	Fruita	Semi-bituminous	40	2	138
Kannah Creek	Kannah Creek Co-op. Coal Mining Ass'n	Whitewater	Semi-bituminous	16	2	51
	Number of Mines operated : 28			145.1	136	62,117
MOFFAT COUNTY						
Knez	Joe Knez	Craig	Bituminous	187	2	1,232
Shaver	C. G. Phelan	Axial	Bituminous	200	2	1,209
Community	Community Coal Co.	Craig	Sub-bituminous	77	1	389
Hart	Blair Coal Co.	Craig	Sub-bituminous	187	1	240
	Thomas Green	Craig	Sub-bituminous	59	1	141
Wisconsin	Wisconsin Coal M. Co.	Craig	Sub-bituminous	75	1	81
Sheilton	H. D. Sheilton	Maybell	Sub-bituminous	12	1	30
	Number of Mines operated : 7			131.5	9	3,322

MONTEZUMA COUNTY

Hill Top.....	Mancos Hill Coal Co.....	Mancos.....	Semi-bituminous.....	189	6	1,950	50
Dolores.....	Dominick Gorbella.....	Dolores.....	Sub-bituminous.....	175	2	1,310	5
Mancos.....	Mancos Coal Co.....	Mancos.....	Sub-bituminous.....	190	2	972	.....
Willden.....	Willden Coal Co.....	Mancos.....	Sub-bituminous.....	184	2	791	.....
Mesa Verde.....	Earnest Black.....	Cortez.....	Sub-bituminous.....	109	10	637	.....
Morris.....	G. W. Morris.....	Dolores.....	Sub-bituminous.....	59	2	567	4
Spencer.....	Geo. S. Spencer.....	Mancos.....	Sub-bituminous.....	120	1	521	.....
Cortez.....	Cortez Coal Co.....	Cortez.....	Sub-bituminous.....	100	2	484	.....
Pinos Altos.....	H. A. Alnsworth.....	Mancos.....	Sub-bituminous.....	78	2	168	.....
Stakish (Ocean Wave)....	Geo. Stakish.....	Jellow Jacket.....	Sub-bituminous.....	20	1	57	.....
Number of Mines operated: 10.....				131.2	30	7,447	

MONTROSE COUNTY

Liberty Bell.....	King & Mitchell.....	Naturita.....	Sub-bituminous.....	314	2	911	10
Rice.....	Arthur Rice.....	Redvale.....	Sub-bituminous.....	132	1	233	.....
Independence.....	Wm. J. Oberding.....	Nucia.....	Sub-bituminous.....	100	1	200	.....
Pleasant Valley.....	M. L. Holder.....	Nucia.....	Sub-bituminous.....	50	1	100	2
Number of Mines operated: 4.....				182	5	1,444	

OURAY COUNTY

Bright Diamond.....	C. D. Slagle.....	Ridgway.....	Sub-bituminous.....	300	2	377	.....
Kennedy.....	H. A. Kennedy.....	Ridgway.....	Sub-bituminous.....	90	1	382	.....
Colona.....	Colona Coal Co.....	Montrose.....	Sub-bituminous.....	15	1	37	.....
Number of Mines operated: 3.....				176.1	4	796	

PITKIN COUNTY

Placita.....	Placita Mine L. Co.....	Carbondale.....	Bituminous.....	100	2	1,093	.....
Number of Mines operated: 1.....				100	2	1,093	

TABLE D—1934—Continued.
RIO BLANCO COUNTY

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Average No. of Miners Employed	Total Number of Days Worked	Days per Ton of Coal Produced	Mine per Day, Tons	Capacity of Mine per Day, Tons
New Pollard.....	C. F. Pollard	Meeker.....	Bituminous.....	239	2	1,813	10	
Pollard.....	Electric Coal Co.	Meeker.....	Bituminous.....	262	2	1,430	50	
McKee.....	Electric Coal Co.	Meeker.....	Bituminous.....	41	1	72	.....
Rio Blanco.....	Ivor Adair....	Rio Blanco.....	Bituminous.....	213	2	878	.....
Reinau.....	R. C. Reinau.....	Meeker.....	Bituminous.....	124	1	602	.....
Johnny Boy.....	Hart & Son.....	Meeker.....	Bituminous.....	181	1	562	10	
Nine Mile.....	Thos. D. Foreman.....	Meeker.....	Bituminous.....	216	1	478	50	
Douglas Creek.....	Jones & Trachta.....	Rangely.....	Bituminous.....	30	2	79	4	
	Number of Mines operated : 8.....				168.1	12	5,914	

ROUTT COUNTY

Harris.....	Colorado & Utah Coal Co.....	Mt. Harris.....	Bituminous.....	65.1	148	102,173	4,000	
Moffat Nos. 1 & 2.....	Moffat Coal Co.....	Oak Creek.....	Bituminous.....	94.9	182	97,984	4,000	
Hayden No. 3.....	Hayden Coal Co.....	Haybro.....	Bituminous.....	72	121	90,603	1,500	
Pinnacle.....	Victor-American Fuel Co.	Oak Creek.....	Bituminous.....	94	119	68,188	1,500	
Wadge.....	Victor-American Fuel Co.	Mt. Harris.....	Bituminous.....	46	40	22,869	1,000	
Bear River.....	Bear River Coal Co.....	Bear River.....	Bituminous.....	100	52	42,276	1,900	
Keystone.....	Keystone Coal Co.....	Rout.....	Bituminous.....	76.5	62	33,358	1,000	
Butcher Knife.....	Frank Coryell.....	Bear River.....	Bituminous.....	78	8	8,382	.....
McNeil.....	W. H. Neil.....	McGregor.....	Bituminous.....	300	5	5,741	40	
Argo Gulch.....	Geo. T. Roltz.....	Oak Creek.....	Bituminous.....	172	6	4,758	50	
Seven Point.....	Routt County Mining Co.	Philipsburg.....	Bituminous.....	123	7	4,194	150	
P. K. No. 1.....	Pinnacle-Kemmerer Fuel Co.	McT. Harris.....	Bituminous.....	10.5	35	2,825	500	
Block.....	E. H. Zimmerman.....	Steamboat Springs.....	Bituminous.....	200	2	1,351	25	

ROUTT COUNTY—Continued

Babson	Babson Coal Co.	Hayden	Bituminous	108	2	1,056	30
Hayden Valley	Hayden Valley Coal M. Co.	Hayden	Semi-bituminous	138	2	941	30
Black Cat	Black Cat Coal Co.	Bear River	Bituminous	150	2	909	16
Apex	Geo. Steel & Co.	Oak Creek	Bituminous	90	3	739	...
Premium	Fruth & Micheletti	Milner	Bituminous	133	2	673	20
Babich	Nick Babich	Oak Creek	Bituminous	100	1	500	3
Ritching	Little Pinnacle Coal Co.	Bear River	Bituminous	51	2	421	7
Jones	Jones Coal Co.	Bear River	Bituminous	100	2	342	...
Morgan	John Pollo, Jr.	Steamboat Springs	Bituminous	51	1	306	16
Blue Spruce	W. L. Jones	Oak Creek	Bituminous	250	2	373	...
Ben Male	Donald Cline	Oak Creek	Bituminous	92	3	297	10
Chergo	Tom Chergo	Oak Creek	Bituminous	50	1	250	5
Amos	Amos Coal Co.	Milner	Bituminous	62.5	1	220	6
Webber	J. E. Webber	Pagoda	Bituminous	35	1	152	...
Number of Mines operated: 27				81	812	491,881	

SAN MIGUEL COUNTY

Keck-Reliance	A. E. Hardman & Son	Norwood	Sub-bituminous	150	2	420	5
Elder	Gene Elder	Norwood	Sub-bituminous	146	2	332	...
Gray	L. J. Gray	Norwood	Sub-bituminous	150	1	310	2
Marriott	Wm. Marriott	Norwood	Sub-bituminous	86	1	162	...
Horton	Horton Coal Co.	Norwood	Sub-bituminous	90	1	154	...
Number of Mines operated: 5				132	7	1,378	

WELD COUNTY

Columbine	Serene	Sub-bituminous	214	263	222,881	1,600
Grant	Frederick	Sub-bituminous	221	124	149,317	1,000
Morrison	Erie	Sub-bituminous	126	148	127,487	...
Clayton	Erie	Sub-bituminous	101	125	89,592	2,000
Boulder Valley	Erie	Sub-bituminous	96	96	161,148	2,000

TABLE D—1934—Continued.
WELD COUNTY—Continued

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Produced per Day, Tons		
				Total Number of Men Employed	Average Men per Day	Capacity of Mine per Day, Tons
Imperial.....	Imperial Coal Co.	Erie.....	Sub-bituminous.....	183	123	1,217,775
Russell.....	Wm. E. Russell Coal Co.	Frederick.....	Sub-bituminous.....	185	78	103,702
Sterling.....	McNeil Coal Corp.....	Dacono.....	Sub-bituminous.....	174	91	89,662
Baum.....	Consolidated Fuel Coal & Coke Co.	Dacono.....	Sub-bituminous.....	16.8	106	84,622
Puritan.....	National Fuel Co.	Frederick.....	Sub-bituminous.....	92.7	159	81,808
Shamrock.....	Shamrock Coal Co.	Frederick.....	Sub-bituminous.....	113.6	84	78,086
Lilley.....	Lilley Coal & Land Co.	Frederick.....	Sub-bituminous.....	195	42	42,259
Monroe.....	Monroe Coal Co.	Lafayette.....	Sub-bituminous.....	242	20	12,324
La. Salle.....	La. Salle Coal Co.	La. Salle.....	Sub-bituminous.....	217	4	2,201
Buddy.....	Buddy Coal Co.	La. Salle.....	Sub-bituminous.....	179	2	1,814
Bohlender.....	Bohlender Coal Co.	La. Salle.....	Sub-bituminous.....	104	7	1,440
White Ash.....	White Ash Coal Co.	La. Salle.....	Sub-bituminous.....	190	3	1,233
Christy.....	Christy Coal Co.	La. Salle.....	Sub-bituminous.....	154	5	873
Coalridge.....	Black King Coal Co.	Firestone.....	Sub-bituminous.....	90	5	750
Silver.....	R. E. Combs.	Ft. Lupton.....	Sub-bituminous.....	76	4	676
Hill.....	Hill Coal Co.	Briggsdale.....	Sub-bituminous.....	106	2	451
Sunset.....	E. E. Phillips.	Evans.....	Sub-bituminous.....	77	3	89
Number of Mines operated : 22				159	1,494	1,374,170
STATE OF COLORADO						
Total Number of Mines Operated.....						352
Total Number of Man-Days Worked.....						142,9+
Total Number of Men Employed (Average).....						8,138
Total Number of Tons of Coal Produced.....						5,251,003

PRODUCTION BY COUNTIES BY MONTHS, 1931

Month	Archuleta	Boulder	Delta	Elbert	El Paso	Fremont	Garfield
January	55,209	9,316	537	47,498	49,483	3,688	
February	39,020	3,968	355	35,260	21,644	2,245	
March	47,086	4,581	307	40,518	26,035	2,646	
April	30,747	2,809	146	27,825	11,723	2,004	
May	22,659	2,378	42	23,343	24,408	1,683	
June	11,761	1,438	13	14,634	14,637	1,299	
July	14,278	788	23	13,258	9,653	1,058	
August	31,652	3,465	14	15,135	23,814	1,590	
September	57,958	5,617	78	19,549	37,504	2,383	
October	50,453	6,078	525	27,985	41,588	3,154	
November	57,613	7,963	561	38,245	40,174	3,630	
December	1,106	80,697	11,801	535	42,728	46,693	5,067
Total	1,106	499,133	60,202	3,136	345,978	347,356	30,447

Month	Gunni- son	Huerfano	Jackson	Jefferson	La Plata	Las Animas	Larimer
January	43,157	99,127	4,192	16,425	4,106	158,982	---
February	21,051	58,185	1,927	13,162	2,604	120,806	---
March	29,199	64,346	3,934	13,749	2,163	136,856	---
April	13,081	43,913	2,527	11,517	1,483	114,665	---
May	21,127	73,239	2,495	9,260	1,457	102,480	---
June	20,310	67,583	2,004	8,279	953	97,470	---
July	22,714	55,982	1,304	8,677	1,021	85,889	---
August	34,098	74,736	2,132	8,177	1,429	99,934	---
September	45,967	93,429	3,108	8,343	3,145	112,432	---
October	59,297	117,138	7,617	11,956	4,129	115,616	---
November	47,151	121,143	6,102	14,241	3,225	87,739	---
December	47,057	106,576	6,956	16,588	5,942	101,130	1,914
Total	404,209	975,397	44,298	140,374	31,662	1,333,999	1,914

Month	Mesa	Moffat	Monte- zuma	Mont- rose	Ouray	Park
January	10,912	303	587	---	---	---
February	7,400	88	289	---	---	---
March	7,782	136	317	---	---	---
April	5,578	109	189	---	---	---
May	5,139	135	221	---	---	---
June	4,168	54	225	---	---	---
July	5,503	97	82	---	---	---
August	5,788	1,022	73	---	---	---
September	7,778	318	342	---	---	---
October	9,038	673	294	---	---	---
November	9,584	364	341	---	---	---
December	14,009	654	2,025	1,143	1,742	200
Total	92,679	3,953	4,985	1,143	1,742	200

Month	Pitkin	Rio Blanco	Routt	San Miguel	Weld	Total
January	1,221	1,158	73,352	---	245,454	824,707
February	1,206	718	21,145	---	165,303	516,376
March	1,217	710	41,506	---	196,116	619,204
April	980	368	19,583	---	109,050	398,297
May	1,151	269	38,948	---	65,940	396,374
June	1,069	196	18,402	---	41,766	306,266
July	345	176	12,075	---	48,442	281,365
August	302	264	57,850	---	68,067	429,542
September	607	543	67,458	---	137,979	604,538
October	914	612	76,774	---	168,665	702,506
November	657	855	77,379	---	212,615	729,582
December	506	2,078	69,739	1,504	226,916	795,306
Total	10,175	7,947	574,211	1,504	1,686,313	6,604,063

PRODUCTION BY COUNTIES BY MONTHS, 1932

Month	Arapahoe	Archuleta	Boulder	Delta	Elbert	El Paso	Fremont
January	---	---	79,178	7,155	514	44,527	43,430
February	---	---	65,382	5,635	490	34,124	33,097
March	---	---	59,539	4,282	282	37,365	26,786
April	---	---	30,577	2,026	101	23,919	14,622
May	---	---	17,056	1,805	38	14,613	7,335
June	---	---	13,588	1,661	57	12,248	9,607
July	---	---	14,036	1,478	---	10,618	10,207
August	---	---	23,011	2,321	---	13,548	20,244
September	---	---	60,715	3,840	53	17,998	41,714
October	---	---	60,965	6,201	840	26,876	51,257
November	---	---	57,993	6,916	710	30,573	39,081
December	290	751	89,494	7,489	1,214	47,190	60,607
Total	290	751	571,534	50,809	4,299	313,599	357,987

Month	Garfield	Gunnison	Huerfano	Jackson	Jefferson	La Plata	Larimer
January	4,321	44,134	98,848	5,958	16,197	3,693	541
February	3,516	39,074	71,299	5,143	15,192	2,468	279
March	2,458	22,072	60,428	3,304	15,178	1,064	263
April	1,900	13,023	34,626	3,000	9,935	1,050	67
May	1,522	15,955	35,108	1,771	8,954	1,283	9
June	1,299	14,486	32,240	1,423	7,531	880	26
July	958	15,866	21,025	1,053	8,912	988	10
August	1,773	29,598	35,178	860	8,659	1,250	55
September	2,431	51,703	64,294	3,538	9,442	2,421	166
October	3,221	66,921	82,743	7,038	8,913	4,102	862
November	3,777	48,880	69,533	5,283	10,925	3,432	1,023
December	6,268	43,002	73,170	5,111	12,542	3,347	1,384
Total	33,444	404,714	678,492	43,482	132,380	25,978	4,679

Month	Las Animas	Mesa	Moffat	Montezuma	Montrose	Ouray	Park
January	103,277	10,761	436	786	---	---	---
February	90,063	7,500	358	481	---	---	---
March	97,811	6,248	99	345	---	---	---
April	61,909	3,789	179	133	---	---	---
May	55,244	3,351	133	127	---	---	---
June	62,233	2,068	117	67	---	---	---
July	34,280	2,490	81	44	---	---	---
August	49,588	3,388	156	116	---	---	---
September	73,117	4,902	417	249	---	---	---
October	77,616	6,997	216	482	---	---	---
November	74,055	7,334	339	412	---	---	---
December	79,344	11,502	684	1,806	1,279	1,133	300
Total	858,537	70,330	3,215	5,048	1,279	1,133	300

Month	Pitkin	Rio Blanco	Routt	San Miguel	Weld	Total
January	410	944	83,920	---	213,209	762,239
February	707	646	63,498	---	160,219	599,171
March	175	489	52,592	---	162,124	552,904
April	---	338	7,662	---	66,845	275,701
May	---	147	6,969	---	35,433	206,853
June	---	239	18,152	---	32,213	210,129
July	---	208	18,438	---	35,503	176,195
August	---	271	35,733	---	50,111	275,860
September	---	438	79,994	---	112,669	530,101
October	210	745	76,000	---	166,627	648,832
November	150	884	51,180	---	187,462	599,982
December	200	1,929	80,115	832	247,625	778,608
Total	1,852	7,278	574,253	832	1,470,030	5,616,525

PRODUCTION BY COUNTIES BY MONTHS, 1933

Month	Adams	Arapahoe	Archuleta	Boulder	Delta	Elbert	El Paso
January	---	---	---	68,456	6,364	449	37,649
February	---	---	---	70,155	6,361	519	37,383
March	---	---	---	38,082	2,312	368	30,756
April	---	---	---	29,942	3,003	191	25,281
May	---	---	---	15,759	2,304	117	19,119
June	---	---	---	6,808	632	52	11,571
July	---	---	---	8,346	3,846	---	12,212
August	---	---	---	23,984	3,341	54	14,796
September	---	---	---	58,997	4,091	207	20,707
October	---	---	---	51,855	4,077	746	23,756
November	---	---	---	38,914	4,316	665	29,988
December	311	180	757	55,793	5,274	833	36,609
Total	311	180	757	467,091	45,921	4,201	299,827

Month	Fremont	Garfield	Gunnison	Huerfano	Jackson	Jefferson	La Plata
January	39,526	3,944	35,841	49,456	2,264	12,219	2,888
February	44,542	2,286	35,625	52,792	3,532	11,388	2,854
March	19,900	1,598	23,240	24,971	1,475	10,577	1,608
April	15,326	1,472	16,130	28,233	1,707	9,532	1,255
May	22,057	1,512	31,372	38,936	1,547	8,285	1,642
June	9,070	1,125	15,445	28,187	90	7,992	1,175
July	16,188	1,774	21,385	24,863	534	9,567	966
August	28,528	1,365	47,401	58,716	1,145	10,207	1,775
September	44,949	1,910	48,084	67,415	3,117	11,919	3,088
October	39,011	2,312	49,404	72,198	3,622	14,874	3,128
November	35,714	3,183	43,764	71,088	3,467	17,728	2,957
December	37,782	5,306	37,982	64,203	5,507	18,755	4,307
Total	352,593	27,787	405,673	581,058	28,007	143,043	27,593

Month	Larimer	Las Animas	Mesa	Moffat	Montezuma	Montrose	Ouray
January	832	68,464	9,178	192	674	---	---
February	772	84,800	8,690	159	381	---	---
March	394	74,839	4,935	23	150	---	---
April	226	58,648	4,298	39	217	---	---
May	328	42,604	3,030	17	167	---	---
June	---	39,237	1,862	---	137	---	---
July	41,865	4,342	---	---	101	---	---
August	26	79,961	6,175	---	237	---	---
September	215	90,218	5,817	273	374	---	---
October	443	100,849	7,206	157	640	---	---
November	769	87,189	9,321	1,458	619	---	---
December	1,305	88,616	12,071	2,605	1,969	1,447	407
Total	5,310	857,290	76,925	4,923	5,666	1,447	407

Month	Pitkin	Rio Blanco	Routt	San Miguel	Weld	Total
January	205	925	39,462	---	176,652	555,640
February	200	846	59,100	---	196,485	618,870
March	101	506	15,244	---	131,925	383,004
April	52	393	11,707	---	105,229	312,881
May	30	395	32,820	---	70,400	292,441
June	65	225	24,935	---	39,721	188,329
July	66	169	19,878	---	42,179	208,281
August	60	264	33,554	---	71,712	383,301
September	229	549	79,737	---	143,854	585,700
October	301	783	67,811	---	142,461	585,634
November	150	773	43,214	---	160,347	555,624
December	215	1,155	41,076	1,389	189,313	615,167
Total	1,674	6,983	468,538	1,389	1,470,278	5,284,872

PRODUCTION BY COUNTIES BY MONTHS, 1934

Month	Adams	Archuleta	Boulder	Delta	Elbert	El Paso	Fremont
January	---	---	53,623	4,219	510	35,695	37,212
February	---	---	52,114	2,570	440	32,804	31,053
March	---	---	45,573	1,975	454	32,737	27,557
April	---	---	25,312	2,095	159	21,991	14,020
May	---	---	17,567	515	111	14,248	8,950
June	---	---	16,012	442	103	12,171	8,898
July	---	---	11,546	2,574	40	11,493	10,519
August	---	---	21,738	2,150	91	15,245	22,750
September	---	---	55,039	4,414	268	22,815	41,126
October	---	---	48,404	5,948	502	24,552	47,628
November	---	---	50,976	4,617	572	30,452	48,198
December	421	917	64,710	7,154	2,747	39,059	65,892
Total	421	917	462,614	38,673	5,997	293,262	363,803

Month	Garfield	Gunnison	Huerfano	Jackson	Jefferson	La Plata	Larimer
January	2,794	34,332	54,588	1,879	15,476	2,169	679
February	1,777	23,058	42,099	2,667	13,793	1,714	392
March	1,628	30,150	52,599	2,186	11,732	1,625	377
April	2,055	17,657	31,934	1,687	10,040	1,189	119
May	1,572	30,370	43,366	1,287	8,834	1,055	10
June	1,543	14,851	17,694	866	8,618	938	---
July	1,041	21,606	29,568	918	9,215	810	---
August	1,850	46,210	50,143	943	10,307	1,334	---
September	2,569	54,989	63,757	3,110	10,991	2,106	330
October	2,642	70,656	88,824	2,969	11,363	3,162	401
November	3,556	45,014	64,663	3,074	11,679	2,462	504
December	4,855	59,048	68,389	3,072	14,755	5,074	889
Total	27,882	447,971	607,624	24,658	136,808	23,638	3,701

Month	Las Animas	Mesa	Moffat	Montezuma	Montrose	Ouray	Pitkin
January	80,094	7,370	164	1,383	---	---	162
February	68,550	4,609	116	749	---	---	118
March	67,811	4,858	92	503	---	---	93
April	60,873	2,943	89	202	---	---	32
May	63,187	2,123	45	254	---	---	28
June	54,945	2,185	55	167	---	---	22
July	61,282	3,516	37	309	---	---	17
August	75,104	4,357	54	481	---	---	44
September	80,588	6,227	158	676	---	---	173
October	85,523	7,733	125	555	---	---	82
November	80,982	6,792	140	686	---	---	190
December	84,533	10,004	2,247	1,482	1,444	796	132
Total	863,472	62,117	3,322	7,447	1,444	796	1,093

Month	Rio Blanco	Routt	San Miguel	Weld	Total
January	746	43,513	---	157,281	533,889
February	520	29,203	---	151,706	459,487
March	419	26,445	---	130,523	439,337
April	270	15,234	---	82,947	290,848
May	212	10,958	---	48,697	253,389
June	186	15,467	---	40,050	195,213
July	125	6,877	---	49,547	221,040
August	227	22,767	---	59,252	335,047
September	467	77,071	---	155,735	582,609
October	631	95,182	---	140,292	637,174
November	761	64,768	---	165,888	585,974
December	1,350	84,396	1,378	192,252	716,996
Total	5,914	491,881	1,378	1,374,170	5,251,003

SHOWING COMPARATIVE ANNUAL PRODUCTION BY COUNTIES 1931-1934

Counties	1931	1932	1933	1934
Adams			311	421
Arapahoe		290	180	
Archuleta	1,106	751	757	917
Boulder	499,133	571,634	467,091	462,614
Delta	60,202	50,809	45,921	38,673
Elbert	3,136	4,299	4,201	5,997
El Paso	345,978	313,599	299,827	293,262
Fremont	347,356	357,987	352,593	363,803
Garfield	30,447	33,444	27,787	27,882
Gunnison	404,209	404,714	405,673	447,971
Huerfano	975,397	678,492	581,058	607,624
Jackson	44,298	43,482	28,007	24,658
Jefferson	140,374	132,330	143,043	136,808
La Plata	31,662	25,978	27,593	23,628
Larimer	1,914	4,679	5,310	3,701
Las Animas	1,333,999	858,537	857,290	863,472
Mesa	92,679	70,330	76,925	62,117
Moffat	3,953	3,215	4,923	3,322
Montezuma	4,985	5,048	5,666	7,447
Montrose	1,143	1,279	1,447	1,444
Ouray	1,742	1,133	407	796
Pitkin	10,175	1,852	1,674	1,093
Park	200	300		
Rio Blanco	7,947	7,278	6,983	5,914
Routt	574,211	574,253	468,538	491,881
San Miguel	1,504	832	1,389	1,378
Weld	1,686,313	1,470,030	1,470,278	1,374,170
Total	6,604,063	5,616,525	5,284,872	5,251,003
Decrease				

COAL PRODUCTION IN COLORADO FROM 1873 TO 1934,
INCLUSIVE

Year	Tons	Year	Tons
1873	69,977	1904	6,776,551
1874	87,372	1905	8,989,631
1875	98,838	1906	10,308,421
1876	117,666	1907	10,965,640
1877	160,000	1908	9,773,007
1878	200,630	1909	10,722,490
1879	322,732	1910	12,104,887
1880	375,000	1911	10,197,595
1881	706,744	1912	11,016,948
1882	1,161,479	1913	9,268,939
1883	1,220,593	1914	8,201,423
1884	1,130,024	1915	8,715,397
1885	1,398,796	1916	10,522,185
1886	1,436,211	1917	12,515,305
1887	1,791,735	1918	12,658,055
1888	2,185,477	1919	10,406,543
1889	2,400,629	1920	12,514,693
1890	3,075,781	1921	9,141,947
1891	3,512,632	1922	10,003,610
1892	3,771,234	1923	10,336,735
1893	3,947,056	1924	10,501,088
1894	3,021,028	1925	10,440,387
1895	3,339,495	1926	10,616,760
1896	3,371,632	1927	9,781,580
1897	3,565,660	1928	9,921,585
1898	4,174,037	1929	9,934,064
1899	4,826,939	1930	8,238,094
1900	5,495,734	1931	6,604,063
1901	6,021,405	1932	6,616,525
1902	7,522,923	1933	5,284,872
1903	7,775,302	1934	5,251,003

LIST OF FATAL ACCIDENTS WHICH OCCURRED IN THE COAL MINES OF COLORADO, 1931

January 2—HERMAN GRANT, American (colored), driver, experience 25 years, age 41 years, married, four children, employed by the McNeil Coal Corp. at the Cameo mine, Mesa County, was injured by being kicked by a mule on December 31 and died two days later. The deceased was riding on the front end of a loaded car which was being pulled by a mule; a tail chain was being used and each car wheel had a sprag. When he was coming out of an entry one of the sprags broke causing the car to run faster and crowding the mule. The deceased remained on the front end of the car trying to keep the mule in the clear. There was sufficient clearance on both sides of the track and it is not known why he did not get off the car when the sprag broke. He stated to the mine foreman that he was in the act of putting up his foot on the rear of the mule to restrain the car from running too close to the mule when he was kicked. The deceased was considered a good driver, with years of experience. The accident might have been avoided had the deceased got off the car when the sprag broke, as there was plenty of clearance at this point, and would have been avoided if deceased had ridden on the rear end of the car.

January 5—SALVADOR LOPEZ, Mexican, pick miner, experience a year and six months, age 20 years, single, employed by the Colorado Fuel and Iron Co. at the Pictou mine, Huerfano County, was killed by a fall of draw rock. Deceased and his partner were working on a room pillar and had loaded about two cars when the draw rock along the face of the pillar where they had extracted the coal fell on him, killing him instantly. This place was not well timbered, as the distance from the track to the line of the coal face was eight feet, without any props being set. This accident probably would have been avoided had there been some props set, as the draw rock was not very thick—about eight inches. The accident may be charged to the poor judgment of the miners and to the mine foreman, who did not see that these men were not timbering according to his instructions, as he had visited the place about 4 a. m. and the accident occurred at 10 a. m.

January 7—THOMAS STRUTHERS, Scotch, mine foreman, experience 54 years, age 67 years, married, six children, employed by the Victor-American Fuel Co. at the Delagua mine, Las Animas County, was squeezed between a car and door frame on the sixth and died the following day from the effects of injury. At the time of the accident the deceased was acting as nipper for the motorman. He opened a trap door for the loaded trip to back so that they could pick up some more loaded cars that were in the back entry. After deceased had coupled three cars to the trip he flagged the motorman to pull out of this place. At this point it is necessary to set the last three brakes on the trip as it pulls out. In doing this the deceased was caught between the car and the door frame

and was rolled about, injuring him so severely that he died the next day. It is not known whether his clothing was caught on the car or unknowingly while setting the brakes he backed into the door frame and was caught. The accident is classed a misadventure for which no one can be blamed.

January 15—DANIEL TINOCO, Mexican, pick miner, experience nine years, age 27 years, married, one child, employed by the Colorado Fuel and Iron Co. at the Kebler No. 2 mine, Huerfano County, was killed by a rope trip. The deceased had finished work for the day and started to walk out to the main slope to the man trip station. He worked in the fifth panel and before he reached the fourth panel the trip that was being dropped from the fifth panel overtook him, striking him and killing him instantly. He did not hear this trip coming as the hoist at the fourth level panel was running at the time and the noise from it prevented him hearing the approaching trip. At the point where deceased was struck there is a double track and there was plenty of clearance to get out of the way. The accident was unforeseen and is classed as unavoidable.

February 17—CHARLES MADDONA, Italian, blacksmith, experience 11 years, age 43 years, single, employed by the Rocky Mountain Fuel Co. at the Standard mine, Boulder County, was injured January 7 by a tool striking his head and he died from its effects on the above date. At the time of the accident the deceased raised the apron on the chute preparatory to loading coal into a truck, when in some manner the handle of the windlass slipped from his hand and whirled around, striking his forehead and causing a severe laceration. This was dressed immediately by the doctor in the mine office and he returned to work to finish the shift. He continued to work for several days, but on February 3 he took very ill, complaining of a severe headache. He was taken to a hospital, where he died. The accident was a misadventure for which no one could be held responsible.

March 9—TONY JAMES, Italian, machine miner, experience 38 years, age 52 years, married, one child, employed by the Rocky Mountain Fuel Co. at the Grant mine, Weld County, was killed by a fall of top coal from side of entry. Deceased and his partner were cleaning up a fall of top coal in an entry and while loading the ninth car another fall occurred, striking deceased in such manner that it forced him over the car, killing him instantly. The seam is from nine to 10 feet thick, $3\frac{1}{2}$ feet being left for roof. This top coal is cut in center of places until it reaches the roof proper, thus leaving the sides hanging over. In some instances they are secured by braces, but generally no supports are used. The accident might have been avoided had the sides been braced or timbered in advance of the fall. The mine foreman had visited the place fifteen minutes prior to the accident. The responsibility for the accident is placed jointly on the management and deceased.

March 11—F. G. MERRITT, English, machine miner, experience 25 years, age 60 years, married, four children, employed by the Leyden Lignite Co. at the Leyden mine, Jefferson County, was killed by a fall of rock and coal. Deceased and partner were cleaning up a fall of coal at neck of room. They had sounded the roof and considered it safe just a few minutes before the fall and the mine foreman had just left the place when, without warning, rock and coal fell striking deceased. Apparently a bump occurred in close proximity which jarred the rock and coal loose. The accident is classed as unavoidable.

March 21—HOWARD ELLIOTT, American, electric machine runner, length of experience not known, age 31 years, married, two children, employed by the Blue Bird Mines, Inc., Jefferson County, was severely injured March 17 and died on the above date. Deceased and partner were moving an electric shearing machine from face of upper slope to a room by means of coupling it to the rear end of two empty cars and drawn by the hoisting engine. Partner was riding on front end of the machine when about 75 feet from the face the haulage rope broke. When this occurred the empty cars and machine started backwards and down the slope, throwing deceased off and he was caught by the cars as they went by, injuring him so severely that he did not recover. The slope is driven on a $33\frac{1}{3}\%$ pitch. The haulage rope was of steel wire and upon examination showed many broken wires in strand due to wear. There was no drag on the machine. The accident was due to using a worn out rope, the omission of a drag being used when hauling the machine up the slope and the deceased riding on it. The responsibility is charged jointly to the management and deceased.

April 1—HERBERT SHAW, assistant mine foreman, experience not given, age 52 years, married, five children, employed by the Colorado Fuel & Iron Co. at the Frederick mine, Las Animas County, was injured by being caught between car and rib on March 24, 1931, and died on the above date. Deceased was traveling with the regular man-trip of 12 cars on the main haulage road to the 18th west where 10 empty cars were left standing on the main haulage road from the previous day. In order to pass, these cars had to be switched, so deceased walked ahead to the front of the empty cars and boarded same apparently to switch them when in some manner the front car became derailed about 30 feet from the switch and came in contact with the right hand rib of the entry and he was flung between it and the car and injured so severely that he died on the above date. Deceased stated that he did not know what caused the car to derail. The track was found to be in good condition, clear of obstructions and there was sufficient clearance on both sides of the track. The accident was a mishap and is classed as unavoidable.

April 14—JULE GILLETT, American, nipper, experience not given, age 39 years, married, two children, employed by the Calu-

met Fuel Co. at the Calumet No. 2 mine, Huerfano County, was injured on the 11th of April by being caught between haulage motor and door frame and died on the above date. There is a door on the fourth north entry inby dip entries, and parting switch starts three feet inby door. The motor went into this parting to pick up two loaded cars to complete the trip and had pulled in on the empty track alongside the loads, placed a tie against front end of motor and rear end of loads and gave them a shove so that they would run past the parting switch. Deceased then followed the loads and called to the motorman to come on and upon arriving at the door found that the rear end of the last car had it blocked so that he could not get through and before he could step back in the clear the motor caught him against the door frame and crushed him, causing injuries from which he died. There is not sufficient clearance between top of motor and roof for the motorman to see ahead. The company is held responsible for this accident on account of improper and dangerous method used in switching these cars. A recommendation has been made that all switching must be done with the cars securely coupled to the motor so that they can be kept under control at all times.

May 16—MANUEL GOMEZ, Mexican, pick miner, experience 21 years, age 48 years, widower, no children, employed by the Torrid Coal Co., Torrid mine, Huerfano County, was killed by a fall of draw slate. Deceased was working single in a room and there were no eyewitnesses to the accident. This room has about 18 inches of draw rock over the coal, making a bad roof condition. The place was well timbered, but while digging coal at the face an invisible slip in the draw rock was uncovered and the rock, being relieved, swung out the roadhead prop and fell on deceased, killing him instantly. The accident was unforeseen and is classed as unavoidable.

July 2—THERON GARDNER, American, coal dumper, experience 20 years, at coke plant, age 51 years, married, two children, employed by the American Smelting & Refining Co. at the washer of the Cokedale Coke Plant, Las Animas County, was injured May 19 by having his left arm caught between belt and pulley of coal crusher and died on the above date from the effects of same. According to statement of deceased, he was attempting to remove some fine coal dust which had accumulated on the pulley driving the crusher for the washer while the machinery was in motion. In some manner he slipped and his hand fell on the belt, carrying his arm over the pulley to the framework, crushing his arm badly. It was an error of judgment to attempt cleaning the pulley while the machinery was in motion and it was also against the rules of the plant.

July 2—DAVID JACKSON, American, fire boss, experience 35 years, age 51, married, two children, employed by the Bear Canon Coal Co. at the Bear Canon No. 6 mine, Las Animas County,

came to his death by the exploding of detonators which he was carrying loose in his pocket and which was started off by a local gas explosion. Deceased was acting as shotfirer at the time of the accident and had tamped and lit two shots in room No. 11, then went to room No. 13 and lit one shot there and was on his way out when the shots in No. 11 room went off. One of them was a blown-out shot, which undoubtedly set off an accumulation of gas in the high point gob side of room No. 11 causing a local explosion and exploded the detonators in deceased's pocket.

RECOMMENDATIONS:

Gentlemen:

The following important recommendations, made by Chief Inspector James Dalrymple, following investigation of explosion at the Bear Canon No. 6 mine on August 12, 1931. These recommendations to take the place of former recommendations.

(1) That all stoppings between main intake and main return, in all cross entries over 500 feet in length from which rooms are worked and in all cross entries from which panel entries are worked, be built of concrete or of stone, brick or tile laid in mortar cut into the sides, top and bottom. This includes all such places already driven as well as such places driven in the future. In ascertaining the 500 feet, part of it may be cross entry and part panel entry. See Section 136 of the Coal Mining Laws.

(2) That all connections between intakes and returns not being used for haulage be closed by permanent stoppings with a small door in stopping where required and in all such connections used for haulage by substantial double doors.

(3) That all cross cuts, except the inside one, be closed. This includes room cross cuts, and 60 feet shall be the maximum distance between all cross cuts.

(4) That all holes drilled must not be less than 12 inches from rib.

(5) That on account of the limited number of shots fired, shooting may be done by fire boss in the morning before making fire boss morning examination. This may be stopped at any time because of inadequate ventilation or material increase in number of shots to be fired by the Deputy State Coal Mine Inspector.

(6) That fuse igniters may be used to fire shots, subject to cancellation by the Deputy Inspector for cause.

(7) That all flame safety lamps must be magnetically locked when in use underground and when testing for gas normal flame shall not be allowed.

(8) That all weekly air readings must include readings taken in last cross cut in each separate split or section and properly recorded in book kept for that purpose.

(9) That fire boss examinations of mine and recording of same shall be done according to Sections 63 and 65 of the Coal Mining Laws.

NOTE: Recommendation No. 6 prohibits all other means of firing shots except by electric batteries.

Recommended and approved by

JAMES DALRYMPLE,

State Inspector of Coal Mines.

August 12—LOUIS LELOGE, French, motor nipper, experience four years, age 27 years, single, employed by the Temple Fuel Co. at the Brodhead No. 9 mine, Las Animas County, was injured on August 11 by being caught between pit cars and rib and died from the injuries sustained on the above date. According to evidence given by the motorman, deceased and partner had loaded 20 cars and backed 10 cars into the 11th south parting, which has a grade of 1% for a distance of 120 feet then dipping 4½% for a considerable distance into the parting. He also stated that he backed the motor into the trip to take same to the main slope. He saw deceased between third and fourth cars. When coupled the trip to his five-ton motor it could not pull the load and the trip backed down the 4½% grade with deceased between the cars. Deceased stated that he struck his head against the roof, knocking him off the trip and he fell between the rib and cars, crushing him fatally. The distance between rail and rib where he was found is three feet two inches. The motorman said that he had been instructed by the mine foreman not to switch loaded cars into the 11th south entry on account of this grade but to switch into the 13th north entry. This being true, the motorman disobeyed instructions and is partly responsible for the accident.

August 12—ERNEST FRAZY, Italian, machine miner, experience 33 years, age 53 years, married, one child, employed by the Colorado Fuel & Iron Co. at the Robinson No. 4 mine, Huerfano County, was injured on August 11 by a fall of top rock and died from its effects on the above date. Deceased and his partner were working in a room, they had finished their lunch and before starting to work again deceased tested the roof and found some loose top rock eight feet from the face between rib and roadway. He used a wedge to take this down and then tested the roof again and told his partner that it was "solid." He began to work at the face, trimming it down to square up. In doing this he released an invisible slip along the coal face which allowed rock to fall on him, causing death 14 hours later. The mine foreman had visited the place at 8:30 a. m. and accident occurred at 12:30 p. m. It was unforeseen and is classed as unavoidable.

August 24—STEVE SEPACHEFF, Bulgarian, pick miner, experience 15 years, age 35 years, single, employed by the Castle Rock Coal Co. at the Castle Rock mine, Gunnison County, was

injured by falling on a burning slack dump on August 19 and died from the effects of same on the above date. Deceased was dumping a car of slack coal on the outside of the mine on a dump when the trestle on which he was standing collapsed, dropping him on the burning coal dump. He managed to crawl off the dump and, as there was no assistance at hand, drove his automobile four miles for medical care. He was taken to the Salida hospital, where he died. Very poor judgment was shown in building a trestle over a slack dump subject to combustion, also the dump had been burning for some time and no doubt had weakened the supports of the trestle. Deceased should have known that the trestle was not safe. Recommended that a track be laid along the hillside on the solid ground and the slack dumped from this track. A trestle then will not be necessary. Also no slack be dumped within 300 feet from the mine opening.

September 18—JOHN B. VERCELLONO, Italian, pick miner, experience 25 years, age 62 years, married, seven children (all grown), employed by the Rocky Mountain Fuel Co. at the Industrial mine, Boulder County, was injured August 14 by a fall of pot rock from the roof and died on the above date. Deceased was working helping to load coal into a pit car when the pot rock fell from roof and struck him, injuring him so seriously that he had to be taken to a hospital, where he died. The mine foreman visited the place just one hour prior to the accident. Deceased was a good, practical miner who always kept his place in good condition. The accident was unforeseen and is classed as unavoidable.

October 3—ANDREAS HERNANDEZ, Mexican, pick miner, experience four years, age 23 years, married, no children, employed by the Victor-American Fuel Co. at the Delagua mine, Las Animas County, was injured September 4 by a fall of rock and died on the above date. Deceased and his partner were working on a chain pillar and he accidentally struck a prop with his shovel, knocking it out and released a rock which fell on his back. The place was well timbered and the accident was due to a misadventure. The place had been visited by the fire boss three hours prior to the accident.

October 6—ARTHUR McSHANE, American, machine miner, experience 40 years, age 55 years, single, employed by the Bluff Springs Leasing Co. at the Bluff Springs No. 2 mine, Fremont County, was injured September 29, 1931, by a fall of top rock and died on the above date. Deceased was working on the face of room about 10 feet left of roadway when an invisible slip gave way, catching him and resulting in death eight days later. The slip fell between two props set four feet apart. The accident is classed as unforeseen and unavoidable. The present roof consists of rotten slate and is full of slips. A new timbering agreement is drawn up to take care of this condition. The mine foreman had visited the place about 30 minutes prior to the accident.

October 12—FOSTER RANSON, JR., American, machine miner, experience two years, age 23 years, single, employed by the Bluff Springs Leasing Co. at the Bluff Springs No. 2 mine, Fremont County, was killed by a fall of top rock. Deceased was working on face of room about 12 feet left of roadway turning back coal when an invisible slip gave way, catching him and causing instant death. The place was well timbered and the accident is classed as unavoidable. The place had been visited by the mine foreman about 15 minutes prior to the accident.

October 22—GEORGE NANKOFF, Bulgarian, machine miner, experience 16 years, age 40 years, employed by the Hayden Coal Co. at the Hayden No. 3 mine, Routt County, was caught between pit car and prop and died three hours later from the effects of the injury. A partner of deceased had pulled, with a hoist, a trip of three empty and one loaded cars. When the trip reached the entry where deceased was standing he stepped on the bumper of the first empty car while it was in motion and in some way was caught between the car and prop. This accident could have been avoided had the rule of having 2½ feet clearance on the mechanical haulage been complied with. As it was, the clearance at the time of accident was only one foot between rail and prop and only four inches between the side of car and prop. The management has agreed to widen the clearance as prescribed by law as soon as it is possible. The responsibility of the accident is charged to the neglect of the company.

October 23—SAM DiGACOMO, age 48 years, LORENZO DiGACOMO, age 16 years, and FRANK LAPENNA, age 26 years, were killed by a gas explosion at the Old Ferrell mine, located in Las Animas County, on the above date. The deceased, with Dan Scappucci and Nick Spagnoli, had entered the Old Ferrell mine, which had been abandoned for some time, with open lights. Dan Scapucci urged his fellow men not to proceed into this gas-filled mine, he going out, the others had advanced to a point about 700 feet from the mine portal, where the explosion occurred, killing three instantly and badly burning Nick Spagnoli, who was rescued and taken to the hospital. As these men were trespassers and had no right to enter a mine which was properly blocked off, these deaths are not charged to the industry.

November 9—NORFIO GALLINA, Italian, pick miner, experience 35 years, age 56, married, four children, employed by George Fruth at the New Fruth mine, Huerfano County, was instantly killed by a runaway mine car. Deceased and his partner were working night shift sinking the main slope, which is about 250 feet in length and pitches about 30%. Deceased was drilling a hole on the left rib about 10 feet back from the face when an empty car got beyond control of the men on the tipple, ran down the slope and struck him. The rope rider and hoistman handle all the haulage and they had been in the habit of dumping the car,

then pushing it back to the knuckle and spragging it there before attaching the cable. It was raining at the time of accident and the rails were wet, the car was pushed to the knuckle and spragged but, the rails being wet, the sprag did not hold it and it went over the knuckle and ran into the mine. The management is held responsible for this accident as there was no safety device of any kind installed to prevent cars from running away. Contributing cause was the unsafe method of handling cars on the tipple. Both haulage men are young and inexperienced.

LIST OF FATAL ACCIDENTS WHICH OCCURRED IN THE COAL MINES OF COLORADO DURING THE YEAR 1932

January 15—CARL E. GABALDON, Spanish, machine runner, experience 18 years, age 38 years, married, six children, employed by the Calumet Fuel Co., Calumet No. 1 mine, Huerfano County, was killed by a fall of coal and draw slate. The accident occurred in room 8 off eighth south entry, while deceased was working with W. J. Temple, a machine helper. This room had not been working for seven years prior to accident and while making the first mining a fall of coal and draw slate took place, principally coal weighing about two tons. The machine was idle when the fall took place from the face and W. J. Temple testified that both deceased and himself tested the face by sounding it with a pick before starting to undermine and considered it safe and that the fall gave no warning. Mr. Perry Storey, a coal loader, testified that he cleaned the place up and took down all loose coal and rock just before the machine started cutting and he considered the place safe. Both of the above witnesses considered the accident as unavoidable. The place was visited by the mine foreman at 8:00 a. m. and the accident occurred at 1:00 p. m. It is my opinion that during the seven years which the place had been idle that sufficient weight or pressure had caused the coal to crack beyond the face, probably in such a large piece that it was not detectable by sounding with a pick, and that the accident was therefore unavoidable.

February 1—LOUIS SAKRADIA, Siberian, machine miner, experience 15 years, age 37 years, married, one child, employed by the Boulder Valley Coal Co. at the Boulder Valley mine, Weld County, was crushed under a loaded pit car on January 30, 1932, and died on the above date. Deceased and two partners were extracting a chain pillar and remaining blocks, cutting and hauling their own coal. The working face at point of accident is 25 feet deep, driven in the block and the grade is about 2% in favor of the loaded car in the working place and level on the main entry. Deceased was hauling the coal from the face with a mule, riding the front end standing on the bumpers, with one hand on the bumpers and holding on to the car with the other. When about 45 feet outby on the entry some mishap occurred and deceased either fell or was thrown off the car, landing in the center of the track, where

the car ran over him, causing injuries which resulted in his death about two days later at the Longmont Hospital. At the point of accident there was sufficient height above the loaded car and about 2½ feet unobstructed clearance on both sides of the car. One sprag was in the car wheel and the deceased was an experienced driver. The accident was a misadventure for which no one could be held responsible.

February 6—SOLAN OTIS CARTER, American, pick miner, experience six years, age not given, married, one child, employed by the Delisa Canon Coal Co. at the Cuckoo mine, Fremont County, was injured at the roadhead by a fall of rock on January 21 and died on the above date. A brushing shot had been fired in the roof the night before the accident and the debris was cleared up and used as building material for side walls of road. The rock that fell on deceased was made in the roof by the brushing shot and came down while he was loading a car with coal. The mine foreman and another man were within a few feet of deceased and testified that the rock fell without warning and that the roof had been tested about half an hour before it fell and was considered safe. Three weeks having passed between date of accident and investigation and the working place had advanced 50 feet, so there was no way to determine what the condition of the roof was at that time. A well-defined smooth slip from which the rock fell is still in evidence. This would uphold the testimony that the rock fell without giving any warning. The accident is classed as unforeseen and was unavoidable.

February 10—ARCHIE GOODHEAD, American, mule driver, experience 18 years, age 42 years, married, two children, employed by John D. Cribbs at the Rockvale No. 2 mine, Fremont County, came to his death by falling in front of a loaded car. Deceased was an experienced mule driver and was employed in such capacity in the ninth south entry with several other drivers. The inside drivers always stopped on their way out at a point inside of third dip until the third dip drivers came in. There is a trap door just inside of this with a door attendant who used to whistle to the inside drivers when the third dip drivers had passed in. Deceased, with mule and two loaded cars, had waited at the regular stopping place and the door attendant whistled twice to deceased to start out with his trip and, getting no answer, he went to see what was wrong and found the front loaded car derailed and deceased under it dead. The drivers use what is known as the shafts and guns in place of tail chains, the gun is fastened to the shafts at one end and the other end is fastened to the drawbar of the car. Both connections are made by drop bolts. Four witnesses testified that when they arrived at the place of accident they found the front end of gun disconnected from shaft. What caused this break is not known. It is probable that deceased, in riding front end of trip, had hold of the car with one hand and held the gun with the other and on which he was leaning and that when the disconnection occurred, the

gun dropped down far enough to cause him to lose his balance and fall in front of the car, which ran over him. This was a peculiar mishap and for which no one could be held responsible.

February 29—ANGELO MICHELETTI, Italian, pick miner, experience 25 years, age 54 years, married, no children, employed by the Torrid Coal Co. at the Torrid mine, Huerfano County, was killed by a fall of rock. Deceased and partner were working in a room and had put in a short mining and were about to take down the coal when a pot rock from the roof gave way from a slip close to face of coal. The roof had been tested a few minutes prior to accident and found safe. The last prop set by deceased was about three from the face of coal and on the outside edge of slip of rock and when rock gave way from roof it broke eight inches over the face of the coal. The place was well timbered and the accident is classed as unavoidable.

March 9—ELOY ROMERO, Mexican, pick miner, experience 12 years, age 26 years, married, two children, employed by the Temple Fuel Co. at the Brodhead No. 9 mine, Las Animas County, was killed by fall of rock. Deceased was working on the right side of a room on the butts, which was about 10 feet from room face, and was loading coal on the left side and when the car was about one-third full a large rock, from between two slips paralleling each other, fell between the props. The room was driven west and the slips running north and south, this making the roof very dangerous, which is also heavily saturated with moisture. The place was well timbered, carrying two props on each side of place and two road-head props and the average distance between props was three feet. Deceased was working alone and was found dead under the rock. Mine foreman had visited the place two hours prior to the accident. This accident was unforeseen and is classed as unavoidable.

March 19—JAMES AVILA, Mexican, machine miner, experience two years, age 21 years, single, employed by the Boulder Valley Coal Co. at the Boulder Valley mine, Weld County, was killed by a fall of rock. Deceased and his partner (his father) were driving a break-through in a room pillar. The place was driven about eight feet wide and six feet high to the rock roof, and timbered with cross bars with a leg under each cross bar, which were three feet apart. They were cleaning up the place preparing it for the electric machine so that the cutting could be done. The temporary roadhead prop had been replaced with a cross bar about $3\frac{1}{2}$ feet back from the face and while deceased was picking down a small slab of coal, a rock gave way from a well-defined but invisible slip which ran along the inside edge and parallel with the cross bar. It fell on deceased and killed him instantly. The mine foreman had visited the place an hour before the accident and tested the roof and did not detect any looseness in rock. Partner stated he, too, had tested the roof a few minutes before it fell and it sounded solid. The accident was unforeseen and is classed as unavoidable.

March 23—JOSEPH NEWELL, American, pick miner, experience 12 years, age 28 years, married, one child, employed by John D. Cribbs at the Rockvale No. 2 mine, Fremont County, was injured by a fall of coal on the 22nd of March and died the following day. A shot had been fired by the shot-firer about 12 feet from the roadhead. Deceased returned to the face and after attempting to pull the tail end of the shot down and not succeeding he proceeded to load a car and while doing this the top coal broke loose, striking him and causing such injuries that he died as above stated. The place had been visited by the mine foreman at 8:00 a. m. The accident is classed as unavoidable.

April 16—JOHN McKENNA, Scotch, machine miner, experience 38 years, age 46 years, married, one child, employed by the Victor-American Fuel Co. at the Chandler mine, Fremont County, came to his death by electrocution. The accident took place in a back entry which made considerable water, requiring pumping three times a day. The company pumped the water in the morning before the men entered, but the rest of the pumping was done by the miners during the day. There were no eyewitnesses to the accident. Apparently, deceased started the pump and in throwing the lever of starting box forward he slipped or lost his balance and fell over the pump between the motor and starting box. His right hand was on the brushes and his left hand on the bottom in front of him, grasping a piece of wood, and his body was wedged in between starting box and motor. The clothes and shoes he wore were wringing wet, the ground surrounding the pump was dry. The current is DC, 225 volts, the rails being the return and deceased may have been standing on rail when starting the pump, which had the result of intensifying the shock. Had the lever on the starting box been arranged to pull back from the pump instead of forward to start it the accident in all probability would not have happened. The management agreed to change all their pumps with the above suggestion. No one is held responsible for the accident.

April 21—ROBERT M. SMITH, American, motorman, experience 31 years, age 47 years, married, one child, employed by the Temple Fuel Co. at the Brodhead No. 9 mine, Las Animas County, was killed by striking his head against a cross bar. Deceased left an entry with a light motor to get some loaded pit cars from stumps and pillars in another entry and bring them to the main parting. About 15 minutes later he was found dead between rib and motor. The entry had a grade of $1\frac{1}{2}\%$ to the point where deceased was found. It appeared that he had coasted the motor for that distance, as there was no power on motor. Seventeen feet from where the body was found the low cross bar which apparently caught deceased is but three feet six inches from rail to cross bar, which leaves but four inches of clearance for motor. This entry is low and has never been brushed. In general, the cross bars are about four feet above rail. It is a bad roof and the management is double shifting the places so as to get out of this district as soon as pos-

sible. Upon examination of the low cross bar it was disclosed that someone had come in contact with it, it being two or three inches lower than the balance of cross bars alongside of it. It was recommended that all cross bars be removed wherever possible and that the stumps and pillars be removed as soon as possible by double shifting. Accident is classed as unavoidable.

May 13—JAMES DARR, American, pick miner, experience 30 years, age 47 years, married, three children, lessee of the Happy Canon mine, Montrose County, and—

WILLIAM DARR (nephew of above), American, pick miner, experience one year, age 24 years, single, employed by above, came to their death by "carbon monoxide poisoning" caused by a gasoline engine which was installed inside of the mine. Darr and his nephew opened the Happy Canon mine in March, 1931, and drove a rock slope about 250 feet on a pitch of 20%, where the coal seam was found and about 30 tons of coal were taken out. They encountered water in such quantities that they had to install a pump to handle this flow and, as no other power was available, a gasoline-driven engine was installed and as they advanced the pump was moved from the outside of the mine into the slope and was kept advancing further inside the slope. On May 13 the engine had been shut off and the men proceeded to leave the mine, when they were overcome by the fumes of the gas. Early in the morning a boy passing the mine heard the men talking and the engine going. Nothing more was heard from them until about 5:00 p. m., when the elder man's son, who was with his Sunday School class picnic, arrived at the mine and entered the slope and when in about 175 feet found the bodies of the two men. Evidently they had been dead several hours, as their clothes were soaked from the water dripping from the roof. About four inches of gasoline were found in the tank of the engine and it had been stopped by deceased, probably realizing that the air was getting bad, and on their way out they were overcome by the carbon monoxide gas from the exhaust of the engine. This mine was operated unlawfully and without the knowledge of the Inspection Department. Had the lessee notified the department of the mine, as required by law, the District Inspector would not have allowed the gasoline engine underground not permitted a single tunnel of 250 feet in length to be driven without furnishing adequate ventilation. Had the law been complied with, in all probability this accident would not have happened.

July 4—ANDY KLINE, Austrian, timberman, experience 20 years, age 46 years, single, employed by the Leyden Lignite Co. at the Leyden No. 2 mine, Jefferson County, was injured on June 13 by a fall of rock and coal and died on the above date. Deceased, Glavack and two other men were cleaning up and taking down loose roof on the third panel off second north at No. 4 room neck. Glavack stated deceased was standing on the entry inside of room neck and must have left there and gone into the room neck while

Glavack was taking down loose roof with his back to deceased when he (Glavack) heard a scream. The other two men said they were scared that they did not know what had happened or how. Deceased told the superintendent that he was trying to take down a piece of rock and, failing, he started to pick down the coal supporting the rock when it fell without any warning. The place where the accident occurred had caved and was inaccessible; this, with the conflicting statements made, renders it impossible to place the responsibility.

August 1—AMERICO POLETTI, American, pick miner, experience three years, age 19 years, single, employed by Mattivi & Sons at the Bunker Hill mine, Huerfano County, was killed by a fall of rock. Deceased and his partner had just finished loading a car when a rock fell from an invisible slip in the roof, striking him and killing him instantly. The slip paralleling the entry broke off at the face of the coal and dislodged a roadhead prop which was set about four feet from the face. The roof had been tested and found in good condition. The mine foreman had visited the place 30 minutes prior to accident. The roof showed no indication of being dangerous because of slips while driving entry, which depended entirely upon roadhead props. It is recommended that entry be cross-barred every three feet and kept within three feet of face. Accident is classed as unforeseen and unavoidable.

August 11—THOMAS M. TSIKIRIS, Greek, machine miner, experience 17 years, age 41 years, married, no children, employed by the Clayton Coal Co. at the Clayton mine, Weld County, was caught between car and timber and died two days later. Deceased and his partner had loaded two cars and the partner went outby about 100 feet from the face to a point where the grade of the haulage road changed from level to about $1\frac{1}{2}\%$ in favor of the loads to put in a couple of sprags to slow up the two-car trip when it came out. However, when deceased came to within eight feet from where his partner was waiting he stopped the mule and stepped from the front end of the trip to the side and was caught between the car and leg under one of the cross bars and was severely injured. The deceased was an experienced driver and there was sufficient clearance on the other side of the car and just ahead of where he stepped out. The accident was a misadventure and no one can be held responsible for it.

August 27—W. Y. KING, Korean, miner, experience $6\frac{1}{2}$ years, age 41 years, widower, one child, employed by the Hayden Coal Co. at the Hayden No. 3 mine, Routt County, was instantly killed by a fall of top coal. Deceased was working at face of room picking down loose coal, while his partner was dropping a loaded car out to the room neck. His partner heard a fall and went back and found King under a fall of coal. There is about 18 inches of top coal from room neck to the face of room, which was exceptionally well timbered with one line of props set $5\frac{1}{2}$ feet from the

face. An examination showed the roof to be solid, but the top coal, after falling, exposed a slip just inside the line of props. Mine foreman visited the place at 2:30 p. m. on August 26 and accident occurred at 11:30 a. m. of above date. The coal at this point is subject to bumps and probably this was the cause of the accident.

September 8—JOE ROMANO, American, machine loader, experience nine years, age 25 years, single, employed by the Victor-American Fuel Co. at the Chandler mine, Fremont County, came to his death by falling down a shaft. Deceased and two other men were being hoisted through the old air shaft which was used to hoist men so there would be no interference with the regular shaft hoisting coal during working hours. This shaft is equipped with a steam hoist and indicator consisting of a stationary bar with an arrow near each end and a traveling bar with one arrow. When this arrow reaches the stationary ones, it indicated that the cage was at rest on the top landing or at the bottom of shaft. The arrow indicating the top landing had been moved nearly one inch, so that before the traveling arrow reached the stationary one, the cage was above the landing. Phillip Jirout and deceased jumped from the cage and it is assumed that deceased in jumping struck something which sent him back down the shaft. His body was found at shaft bottom, 480 feet below. Frank Sabatino stayed on the cage. Neither Jirout nor Sabatino were injured. To prevent a repetition of similar accidents the arrows were riveted to the stationary bar. Men had been hoisted from this shaft two days previous to accident and the arrows were in place. No one knows what moved the arrow. Accident is classed as unavoidable.

September 10—GEORGE MUDRACK, American, driver, experience 10 years, age 27 years, married, one child, employed by the Consolidated Coal & Coke Co. at the Baum mine, Weld County, was caught between a loaded car and rib and was crushed so severely that he died a few hours later. There was no eyewitness to the accident, but at the time there were 11 loaded cars all coupled together on the parting, the last car extending over the switch of a room. There was another car in this room which was needed to complete the full motor trip. The deceased started to clear the switch by hauling the last car from the trip inby but neglected to uncouple car and before he realized the mistake the whole trip was running back on the entry. He cut the mule loose and attempted to stop the trip by bracing himself against the corner of the car and while doing this the front pair of wheels took the switch and the rear wheels of the car took the straight track, wrecking it, and catching deceased between the corner of the car and room neck, injuring him so severely that he died as above stated. He was an experienced driver and the accident was due to a mishap for which no one can be held responsible.

September 22—FELIPE SAMUNDIO, Mexican, pick miner, experience 14 years, age 44 years, single, employed by the Victor-

American Fuel Co. at the Pinnacle mine, Routt County, was injured on the 17th of September by coal bumping off the rib and died on the above date. At the time of the accident deceased was standing between two loaded cars and rib of room. He was busy taking down some loose coal off the rib when a bump occurred, throwing coal out with such force that several pieces struck his face, breaking his jawbones and fracturing his frontal skull. The bump being unforeseen the accident is classed as unavoidable.

September 30—TONY SLOGAR, Croatian, pick miner, experience 22 years, age 45 years, married, 11 children, employed by the Horace Anthracite Co. at the Horace mine, Gunnison County, was killed by a fall of rock. The coal seam at this mine is operated by longwall system and it is necessary to brush the roof for a roadway. Deceased and his partner had prepared for a brushing shot the afternoon of the day before the accident, which the shot-firer fired later. On arriving at their working place the following morning they tested the roof and took down loose coal and then proceeded to gob the rock from the brushing shot when a large rock gave way from the right rib, falling on deceased, killing him instantly. This rock parted from the roof and side by an invisible slip swinging out the breaker timbers on the right side. The place was well timbered and had been visited by the mine foreman about two hours prior to the accident. The accident was unforeseen and is classed as unavoidable.

October 4—W. E. WYATT, American, machine helper, experience 13 years, age 33 years, single, employed by the Boulder Valley Coal Co. at the Boulder Valley mine, Weld County, came to his death by being run down by haulage motor. Deceased and his partner started out with a machine from the face of east entry, the motorman was at the face of the main east waiting for the loaders to load a car; when this was finished he started to haul the car out to spot it in the first north and when passing a cross cut about 60 feet inby of the second north, one of the loaders here cautioned him to be careful of the machine men at curtain between first and second north. He immediately slowed down the motor, intending to stop before reaching the curtain, but in the next few seconds he saw deceased raise and lower his light a couple of times and retreat through the curtain. Believing this to be a signal that all was clear, he placed the controller on the second point, advancing through the curtain onto the deceased. The accident was a misadventure due to the curtain shutting off the vision of the deceased and motorman at a critical time, the possibility of the motorman misconstrued the deceased moving a light for a signal and the deceased misjudging the time it would take to remove the cable of the machine before motor arrived.

Recommended: That whenever a machine is moved along a haulage entry that the machine men see that the motor is stopped until the machine and cable are placed in the clear; also that the

motorman ascertain for himself that the road is clear before starting the motor and that curtains be eliminated wherever possible or where an over-cast or under-cast is practical. The accident is classed as unavoidable.

October 6—NELLO CUNICO, Italian, assistant mine foreman, experience 14 years, age 32 years, married, four children, employed by the Colorado Fuel & Iron Co. at the Kebler No. 2 mine, Huerfano County, was injured by flying coal on October 20 and died on above date. Deceased with mine foreman, McAllister, and three other men were engaged in shooting down top on main slope in order to get a more uniform grade in haulage. At the time of the accident Cunico and McAllister were the only men in the mine. Four shots were fired and Cunico used the electric battery to fire them. About 55 feet of shooting wire was used so that was as far as he could get away from the shots before firing them. Delay igniters were used so that deceased reached McAllister, about 80 feet from shots, before the shots went off and before shots went off he complained of having been struck by something, probably a flying rock from the shots. The slope at this point is above the coal so that there were no cross cuts or manholes to get into while shots were being fired. Under such conditions 55 feet of shooting wire is not enough with only the projections on the sides of the slope as their protection. If 150 feet of shooting wire had been used, the accident might have been avoided.

October 14—W. L. HILL, American, machine miner, experience 14 years, age 37 years, married, six children, employed by the Vickers Coal Co. at the Kenneth mine, Las Animas County, was crushed between loaded trip and rib. Deceased and several other men got on a loaded trip at the lower parting of the sixth dips. They rode a distance of seven or eight hundred feet, at which point the manway intersects the dip. In jumping off the trip at this point deceased struck the bell line and was knocked back in between the cars, being dragged and rolled a distance of about 30 feet, sustaining injuries that he died about eight hours later. Deceased was responsible for the accident by riding a trip which is prohibited from being used as a mantrip.

November 7—GEORGE AMEN, German, rancher, no underground experience, age 58 years, married, no children, employed by no one (getting coal for himself), at the Byrnes mine, Arapahoe County, was killed by a fall of debris. This mine was supposed to be operated as a strip pit but deceased was undermining coal from under the roof when about five tons of soapstone fell on him. No timbers or any other kind of supports had been set to uphold the roof. The accident was the result of dangerous practices and lack of experience. No compensation insurance was carried at this mine for those employed.

November 15—ARTHUR H. WEAVER, teamster, some underground experience, age 27 years, single, employed by the Man-

cos Coal & Fuel Co. at the Mancos mine, Montezuma County, was killed by a fall of rock. Deceased was employed as a teamster and, finding there was not enough coal in the chute for a load, entered the mine for a visit with a miner. He sat down on the roadhead and talked with one of the miners who was working at the face when a large rock, released by a V-slip in the roof, fell on him, killing him instantly. The miner working at this place stated that he had tested the roof about 10 minutes previous to the accident, but as he had very little experience in coal mining his judgment as to the condition of the roof was probably as faulty as the roof at this place, which is of a soft, muddy shale and full of cross slips. There was no roadhead prop set in this place. Had there been, probably the accident would have been avoided; otherwise the place was well timbered. The company is to blame for this accident, through a lack of experienced supervision and allowing anyone not employed underground to enter the mine. Recommended that all working places be cross barred and that a roadhead or safety prop be used in all working places.

November 16—GEORGE FOOS, American, driver, experience 14 years, age 28 years, married, three children, employed by the Louisville-Lafayette Coal Co. at the Hi-Way mine, Boulder County, came to his death by being caught between a loaded car and cross bar. A timberman was engaged in putting up a cross bar when deceased came with his mule to pull a loaded car out of the room. As the cross bar was not in place, deceased helped place it. On one side it was hitched in the coal and on the other end a slab was pushed under it for temporary support until deceased had taken out a loaded car of coal. On the way in the mule did not touch the bar, but on coming out with a loaded car he knocked it down, dislodging the slab and allowing the bar to fall across the roadway with one end in the hitch and the other on the floor. Deceased was on the front end of the car and on the side where the bar was in the hitch and he was caught and so badly crushed that he died shortly after the accident. Accident might have been avoided if sufficient clearance had been allowed so that the mule would not rub on timbers, or if timberman had been allowed to finish the job before permitting deceased to pull the car out of the room. Deceased came to his death through no fault of his own and the accident is classed as unavoidable.

December 20—ROY MITCHELL, American, driver, experience 27 years, age 40, married, two children, employed by the Calumet Fuel Co. at the Calumet No. 1 mine, Huerfano County, was killed by a local gas explosion. Deceased was employed as boss driver on the morning of the explosion and was instructed to go to the fourth dip hoist and drop a trip of empties down to the fourth dip for the men to load. In some manner an accumulation of gas had gathered at this hoist and was ignited by an arc caused by a line switch being thrown or from the controller or motor and extended down the dips for a distance of 1,000 feet blowing out

stoppings and extending about the same distance out the fifth east and where the stoppings were blown out between the main and back entries. The stoppings in the sealed area were not injured. This sealed area is in the 8th, 9th, 10th and 11th North Raise Entries off the fifth east. This area has been sealed for five years. It is possible though not probable, that a cave of sufficient size took place in the sealed area to force the gas through the stoppings. There is a pipe which leads from the top of the stoppings in the 11th north which is equipped with a valve that is supposed to be kept chained and locked open. This pipe passes under the haulage tracks of the main east fifth and emerges in the return entry where it is equipped with a series of elbows and nipples, rising vertically two feet and spreading horizontally 18 inches and then drop 18 inches. This open end of the pipe is supposed to be kept under one-half inch of water and is called a water seal. In the lower elbow there is a plug to drain the pipe as water collects in it, evidently from condensation from the warm moist air and gases draining from the sealed area. If this plug is not removed regularly it would allow an accumulation of water and cause pressure to build up in the sealed area forcing the gas to bleed out around the stoppings. There is no doubt the gas came from the sealed area and that either the closing of the valve or neglecting to drain the pipe caused the accumulation. On the day of the accident the mine was idle, but about 67 men were busy loading empties. With deceased was Thomas Somsky who was severely burned. That the explosion did not extend further into the mine but was localized as above stated may be attributed to Rock Dusting of the haulageways. Recommended: (1) That an overcast be built at inby parting the fifth east so that positive ventilation will be assured over the hoist. (2) That elbow and nipple connections be taken off the drainage pipe in the back entry to insure positive drainage.

December 23—JAMES MORRIS, American, driver, experience 35 years, age 50 years, single, employed by the Louisville-Lafayette Coal Co. at the Hi-Way mine, Boulder County, was killed by being dragged under a loaded car. Deceased was taking a loaded car of coal from a chain pillar to the main parting and was on the front end of the car with one foot on the bumper and the other on the tail chain. He had gone about 35 feet when a slight grade in favor of the load, the mule kicked him in the breast causing him to fall in front of loaded car and dragging him under for a distance of 18 feet before the mule could be stopped by one of the miners and caused injuries which caused his death ten hours later. At the point where accident occurred there was ample clearance on both as to height and width, the clearance between bottom of car and top of tie only 11 inches. Deceased was an experienced driver and came to his death through no cause of his own and is therefore classed as a mishap.

December 24—PAUL JACOVETTA, Italian, machine miner, experience 20 years, age 51 years, married, three children, em-

ployed by the W. E. Russell Coal Co. at the Russell mine, Weld County, was killed by a battery haulage motor. The accident happened on the main haulage road as deceased and three other men were traveling towards the hoisting shaft on their way out from their working places. They heard the electric haulage motor coming from the inside with the last trip of the day and stepped into a shelter hole and let the trip go by and as the last car passed by, deceased stepped out onto the track and was struck by a battery motor which was following about 20 or 30 feet behind the coal trip. The deceased neither heard nor saw the motor, and the motorman although reversing the motor was unable to stop it in time to prevent the accident. The other men saw the headlight shining in time to save themselves, but did not have time to warn deceased. The accident was due to a misadventure and no one can be held responsible for it. Recommended: (1) That at least 300 feet distance be kept between the rear end of a trip and the motor of the other trip when running on the same main haulageway at the same time, except when they are coupled together.

LIST OF FATAL ACCIDENTS WHICH OCCURRED IN THE COAL MINES OF COLORADO DURING THE YEAR 1933

January 5—CURTIS E. KNOX, American, night fireman, experience 6 months, age 19 years, single, employed by the Good Fuel Co. at the Christensen mine, Jefferson County, came to his death by being caught between a wire rope hoisting cable and sheave wheel. Deceased assisted his uncle, Mr. Knox, to haul a truck load of slack from a storage bin and spot it near the boiler room, and he was to transfer the slack from the truck by wheeling it into the boiler room in a wheelbarrow during his shift. To make the distance as short as possible the truck was spotted as near to the boiler house as permissible and in doing this the rear end of the truck was directly under the main hoisting cable which runs horizontally from the engine house to a sheave that turns it up to travel over the sheave wheel at the top of the head frame of the shaft. The sideboards of the truck extended to within five inches of the cable. The accident occurred while deceased was in the truck transferring the coal to the wheelbarrow, when the night foreman was going down the shaft to start the pumps. Night foreman got into the skip, the deceased gave a verbal signal to the engineer, who lowered the skip to the proper destination and walked out of the engine room and saw the deceased caught between the rope and lower sheave wheel. He called for help and with the assistance of Mr. Knox, reversed the wheel and released deceased who died a few minutes later. The accident would have been avoided had deceased got out of the truck before giving the signal or had the truck been stopped a few feet farther back so that it would not have been directly under the rope.

January 18—JOHN CHICCOVI, Spaniard, rancher, no experience in coal mining, age 41 years, married, two children, came to

his death by a fall of surface debris. The place of accident is a strip pit used by the community, who go there to mine their own coal free of charge. This pit is located in Elbert County, 12 miles east of Kiowa and is owned by Joseph H. Stander. The coal is six feet in thickness and very impure. It crops out in a gulch several feet above the floor. At the point where the accident happened there is about seven feet of cover over the coal. It seems that deceased was engaged in shovelling away the upper part of the seam which contained a large amount of impurities when the surface over-burden fell upon him, killing him almost instantly. There was no eyewitness present and the foregoing remarks are made from the testimony of Lawrence Bender and Joseph Stander of Kiowa, who helped remove the body from the scene of accident and who accompanied investigator to the pit. This accident could have been avoided if the face of the workings had been kept at an angle of 30 degrees with the horizontal and the coal stripped clean for a distance equal to the thickness of the seam. It is reported that a man was killed 10 years ago at a neighboring strip pit and two years ago a young man was seriously injured at the same pit.

January 25—RALPH CONLEY, American, pick miner, experience 1 year, age 40 years, married, two children, employed by Wm. Marriott at the Marriott mine, San Miguel County, was injured December 19, 1932 by a fall of draw slate which broke his back and caused internal injuries from which he died on the above date. Deceased returned to his working place after having fired a coal shot and started to remove the loose coal from the face when the draw rock over the roadhead gave way falling on him. The place was about 20 feet wide without props, the draw rock over the coal seam is about nine inches thick and is usually taken down after the coal is removed. At the time of the accident the draw rock was overhanging four feet without support. Had deceased timbered the rock or taken it down before he started to remove the coal at the face the accident would have been avoided. Experienced supervision at this mine and lack of good mining practice on part of the deceased are responsible for this accident. Recommended: That a good experienced miner be hired at this mine to look after the safety condition and take care of the inexperienced workers that may be employed.

January 29—CHAS. CESSNA, American, miner, experience 20 years, age unknown, widower, three children (grown up), employed by the North Park Coal Co. at the Moore No. 1 mine, Jackson County, was injured December 21, 1932, by jumping off from a swiftly moving trip of empty cars. It seems that deceased and the rope rider got on the empty trip just as it started to descend the slope, deceased inside the rope car and the rope rider on the rear. After traveling about 200 feet they realized from the great speed they were making that the trip was not under control and when opposite the third north parting they jumped off. The rope rider landed safely but deceased fell and rolled against the rope and

suffered serious injuries. However, he stayed in the mine until the end of the shift. He took to his bed and apparently did not receive proper attention. His wounds became infected and he died on the above date from septic poisoning. The rope rider stated that the brakes would not hold, but the mine foreman stated that the brakes were wet and had he gradually applied the clutch he might have been able to slow the trip down. The accident was a mishap for which no one could be held responsible. Recommended: That brakes on the hoist be tested by actual demonstration or other effective means before men are allowed to ascend or descend the slope.

January 31—SAM CLARK, American, machine miner, experience 30 years, age 48 years, married, two children, employed by the Shamrock Coal Co. at the Shamrock mine, Weld County, came to his death by electrocution. Deceased's partner was pushing an empty cars from the entry, intending to switch it into a room. Deceased was standing close to the switch points, between track and rib, to push over the corner of the car to force it to enter the room switch. The car, being new, was a little tight on the gauge. One wheel took the point and the other went straight, causing it to raise a little, and deceased stepped back into the electric feedline, electrocuting himself. All efforts to resuscitate him were of no avail. The accident was due to a mishap, due to the inherent dangers from electric feed lines in a wet mine. The company stated that the feed lines will be guarded where possible and will discontinue the use of any weatherproofed insulated wires and will replace that which is in use now with a grade of wire that will withstand moisture, if any are available in the markets.

February 10—FORRESTER CARR, American, machine miner, experience 14 years, age 33 years, married, one child, employed by the Garfield Coal Co. at the Garfield mine, Mesa County, was killed by a fall of rock. Deceased was working alone, laying a track to the face of an entry, preparatory to loading coal, when a large rock gave way over the roadhead, falling on him and killing him instantly. This entry is driven 15 feet wide with the track laid on one side. The roof is supported by a row of props five feet apart and parallel to the track on the wide side of the place. The last prop in this row was seven feet from the face. There was no roadhead prop at the time of accident and had there been one the accident probably would have been averted. As a future safety measure, it is recommended: That an emergency prop be used at all times in the working places of this mine.

March 7—GENNARO GUERRIERI, Italian, pick miner, experience 30 years, age 51 years, married, three children, employed by the Crested Butte Coal Co. at the Bulkley No. 2 mine, Gunnison County, was killed by a fall of rock. On March 4 the fire boss examined the working place of deceased and found that shots fired on the last day the mine worked had displaced several props at the

face and rock had fallen. He notified deceased of this condition and according to testimony the latter entered the mine to make the place safe and to prepare for the loading of coal the first day mine worked. He entered the mine without telling any of the officials and no one knew he was in the mine except his family. As he did not return at the usual quitting time, his family called the mine office and a search was made and he was found dead. It was found that deceased had reset two props when a piece of rock fell, striking him on the head and cutting off one finger. He walked about 50 feet and fell where he was found dead. This accident was due to the hazard of the work the deceased was doing and to a lack of discipline on part of the mine management in not enforcing an adequate checking system. To avoid future accidents of this kind the following recommendations are made:

- (1) That a gate be placed at each entrance of mine and be closed when the mine is not working.
- (2) That an adequate checking system be established and the miners be obliged to comply with same so that no one can enter the mine without the knowledge of the officials.

March 23—JAMES W. WATSON, American, tracklayer, experience 14 years, age 47 years, married, five children, employed by the McNeil Coal Corp. at the Sterling mine, Weld County, was killed by a fall of rock. In the section where the accident occurred pillars were being extracted and a final breakthrough in a room pillar had been made and during the night previous to accident, a cave took place in the extracted territory. A small amount of top coal and rock covered the ends of a pair of rails. Deceased and partner, after finding the place quiet, started to remove some of the rock and coal from the rail so that they could move same by hand. While engaged in this work a bump occurred, throwing down a large piece of coal from the rib and top and a slab from the roof followed, striking deceased on the back of his head and shoulders with sufficient force as to cause almost instant death. Accident was a mishap for which deceased was not responsible, as he was performing his duty, although it might have been avoided had a Sylvester and chain been used to pull out the rails.

Recommended: That a Sylvester or other method equally as safe be used to pull rails from under caves. The management stated that the above recommendation will be complied with.

April 16—PETER AUGUST SIRE, American, fire boss, experience 29 years, age 53 years, married, one child, employed by the Boulder Valley Coal Co. at the Boulder Valley mine, Weld County, was injured on March 17 by an underground timber truck and died on above date. During slack periods of working time, trips of timber trucks are spotted in various sections of the mine and fire bosses occasionally take a storage battery locomotive into such sections and unload timbers from the trucks and also distribute them in the working places. On the morning of the accident, deceased

and partner were doing this kind of work when an order was received for the men to withdraw. The trucks were practically unloaded. There were three other men working in the same section and deceased and partner decided to haul them out to the main north to meet the regular man trip that would be coming from the inby north sections. Deceased and the three miners were riding in the first timber truck which was coupled to the motor by a chain about two feet long. There were five other empty trucks on the trip and from evidence given, they were not traveling very fast but on going down a short dip in the track, the empties caught up to the motor, making slack couplings and when the motor picked up the slack, deceased was bumped out of the end of his truck and struck the second truck and injured so severely that he died a month later. The timber trucks are constructed similar to a mine car but lighter in weight and open on both ends. The accident was due to a mishap. The accident was unforeseen but might have been avoided had deceased braced himself more securely in the truck. The men were ordered out with their trucks on account of a fire at the bath house which seemed to be spreading; however, the fire was controlled and the withdrawal was unnecessary.

September 5—W. P. CLARK, American, pick miner, experience 40 years, age 55 years, married, five children, employed by the Mancos Hill Coal Co. at the Mancos Hill mine, Montezuma County, was killed by a fall of rock. Deceased was digging coal at the face of the room when a large piece of drawslate gave way from an invisible slip, striking him and injuring him so severely that he died shortly afterwards. The place was well timbered, having five rows of props about four feet apart and set within four feet from the face. The accident is classed as unforeseen and unavoidable. This mine employs no mine foreman.

June 21—WALTER POLITT, American, pick miner, experience 15 years, age 34 years, single, employed by the Pikes Peak Fuel Co. at the Pikeview mine, El Paso County, was killed by a fall of coal from the roof. A pillar was being extracted in a room off a haulage road where three feet of coal were left up for roof. This was being taken down to provide more height along the haulage road between the last cross cut and the inby breakthrough. A few short plug shots had been fired into the top coal and it was pulled down to a seam parting, leaving a lip of coal about 20 inches. Deceased when starting to work tested the lip of coal and decided to make it safe by driving a wedge over the top to snap off the loose edge. However, owing to the seam parting over farther than is usual, the edge did not break off but a large slab about 8 feet wide and 12 feet long and 20 inches thick gave way, threw out the roadside props and in some manner deceased was caught, receiving such injuries that resulted in immediate death. Deceased was an experienced miner, classed as a very good man for pillar work. The accident was unforeseen and no one could be held responsible for same.

July 21—THOMAS STRUTHERS, American, pick miner, experience 16 years, age 32 years, married, two children, employed by the Victor-American Fuel Co. at the Delagua mine, Las Animas County, was killed by a fall of rock. Deceased and two partners were working in a room splitting a barrier pillar, the two partners working at the face and deceased on the butts about 10 feet from face on the left side of the place. He had mined out coal along the rib towards the face when draw slate gave way from an invisible slip between the rib and props, falling on him and injuring him so severely that he died shortly afterwards. The distance from props to the rib was three feet and the place was well timbered. The accident was unforeseen and therefore unavoidable.

October 3—ABE BELL, American, pick miner, experience 25 years, age 44 years, single, employed by the Moffat Coal Co. at the Oak Hills No. 2 mine, Routt County, was killed by a fall of draw rock. The roof here has a draw rock covering, about one foot thick, overlying the coal and the roof is damp and sweaty, therefore none too safe. At the time of the accident deceased apparently was making a place to set up a prop near the face when a bump occurred causing several pieces of draw rock to fall on him and injuring him so severely that he died shortly afterwards. The place was well timbered, including roadhead prop, and deceased tested the roof just prior to the bump occurring and the roof sounded alright. He was a careful workman and the accident was unforeseen and is classed as unavoidable.

October 13—ROY LOPEZ, Mexican, pick miner, experience 9 years, age 28, single, employed by the Vickers Coal Co. at the Kenneth mine, Las Animas County, was killed by a fall of draw slate from the roof. Deceased and his partner were taking a skip off an upper rib in an entry. When they started to work they were warned by the night mine foreman that the roof was bad, as a slip had opened up along the roadway about five feet from the rib. They trimmed down the loose rock to within about two and one-half feet of rib where they found it too solid to proceed, so two props were set under the overhanging rock and they began to dig coal off the rib. Evidently they thus released the back end of the slip which swung the two props out and let down about a ton of rock, which fell on the two men, injuring deceased so severely that he died four hours later and breaking the back of his partner. The night foreman is also required to run a hoist and it is questionable whether he has time to properly perform his duties as an official. From the evidence given, the accident is classed as unavoidable, but it is recommended:

That the night foreman shall not be required to do any work that interferes with the regular duties as outlined by the title of his position.

November 27—C. W. MILES, American, night engineer, experience 30 years, age 50 years, married, three children, employed by

the Hayden Coal Co. at the Hayden No. 3 mine, Routt County, came to his death through suffocation. At the time of the accident deceased was shoveling fine coal into a concrete pit 3 feet 4 inches long, 3 feet wide and about 4 feet deep. A hose was close at hand running water into the pit to wet the fine coal down. An elevator carried the wetted coal from this pit to a screw in the boiler room which in turn delivered it to bins at the boilers for stoker firing. The elevator is electric and belt driven. In some way deceased fell into the pit, which at the time contained from $2\frac{1}{2}$ to 3 feet of water, and apparently his arm was caught in the elevator, which was in motion, as from the position of his body he made desperate efforts to free himself, his right foot was above the water resting against the wall of the pit and the rest of the body being submerged under the water and not being able to disentangle himself, he was suffocated. Apparently his arm stuck in the elevator as the motor continued to run until the pulley had burned a hole in the belt before the arm was released from the pulley. The accident was a misadventure for which no one could be held responsible. Deceased was a competent and careful workman.

November 29—VAN CLOSE, American, machine miner, experience 26 years, age 43 years, married, three children, employed by the Colorado & Utah Coal Co. at the Harris No. 1 mine, Routt County, was killed by a fall of draw rock. Accident happened in a room pillar. Pillar was cut at the inby end by an arc-wall machine, electrically driven. The machine cuts in the seam four feet below cut and five feet above. The upper part of cut is loaded out first. At the time of the accident deceased was picking down loose coal, loading it into pit car. An invisible slip was exposed, causing a fall of draw rock from the roof to fall on him, causing instant death. The place had been visited two hours prior to the accident. Deceased's partner testified that they had tested the roof before starting to work and during intervals between and found the roof good. The accident happened in P slope. The timbering agreement for this section of the mine calls for timbers to be kept up to within $8\frac{1}{2}$ feet of face. At the time of the accident the nearest timbers to the face were 15 feet away. The company is held responsible for the accident through its failure to have timbering agreement enforced.

Recommendation: That timbers at all times be set in accordance with timbering agreement.

December 2—R. J. BOYLE, American, mine foreman, experience 25 years, age 42 years, married, no children, employed by the Good Fuel Co. at the Littleton Valley mine, Jefferson County; and

MARTIN KRALIEIDES, German, mine mechanic, experience not known, age 44 years, single, employed by the Good Fuel Co. at the Littleton Valley mine, Jefferson County, both of whom came to their deaths from suffocation, caused by black damp. (See detailed report attached hereto, page 129.)

December 2—CHARLES FOSS, American, machine miner, experience 13 years, age 30 years, single, employed by the Louisville-Lafayette Coal Co. at the Hi-Way mine, Boulder County, was electrocuted by coming in contact with a wire charged with 440 volts A. C. Deceased and two partners were preparing to load coal lying on an entry track. The former had placed his coal check on the outby end of his car and was walking between it and the entry rib to start loading when he slipped and in trying to keep from falling, he grabbed a bare spot in the electric feed line wires laid along the rib. The electric feed line wires laid in this section of the mine are insulated with what is known as "rubber covering." At some time a splice was made in one of the wires and was not insulated or taped, leaving a bare spot of about five inches in length. From the evidence given, no one knew that such a bare place existed in the line. The coal mining laws require that all wires, other than trolley wires, conducting electricity, be properly shielded or insulated. This rule being neglected, the company is held responsible for the accident.

December 29—LOUIS CHIODO, Italian, rope rider, experience limited, age 23 years, single, employed by The Colorado Fuel & Iron Co. at the Crested Butte mine, Gunnison County, was run over by a trip of empty cars. Deceased had left his work a little before the regular quitting time and arrived at the man trip station, which is located close to main rope parting. The time was about 3:20 P. M. and as the man trip did not leave the parting until 3:45 P. M., deceased decided to walk. He started out on the manway, but when he came to the first connecting cross cut between manway and haulageway, he cut back to the main haulageway and proceeded out. When he had walked about 150 feet, an empty rope trip coming from the outside knocked him down and injured him so severely that he died an hour later. The haulageway at the point where the accident occurred has an average clearance of three feet on each side of the track, which gave the deceased plenty clearance to get out of the way of the trip. It is possible, however, that the trip being so close to the deceased, that the rope jumping off a roller knocked his feet from under him and, losing his balance, he fell in front of the trip. There were no eye witnesses to the accident. The deceased was entirely to blame, as he was violating the coal mining laws and the company safety rules by traveling the main haulageway when there is a regular manway provided for that purpose. Had he quit work at the regular time the man-trip would have taken him safely out. The discipline at this mine is very good and any miner or employe violating the mining laws or safety rules is punished by being discharged or laid off for several days.

REMARKS ON FATAL ACCIDENT AT THE LITTLETON
VALLEY COAL MINE OPERATED BY THE LITTLETON
VALLEY COAL COMPANY, JEFFERSON COUNTY,
COLORADO, ON DECEMBER 1, 1933

The quality of the coal is sub-bituminous and very subject to spontaneous combustion, the seam being from six to seven feet in thickness and pitching from 67° to 85°. On December 30, 1932, a fire was discovered in chute No. 16, sixth south entry. Deputy Inspector Hugo H. Machin, on December 31, 1932, investigated same and recommended that the south side of mine be sealed off with temporary stoppings, to be followed up immediately with permanent concrete stoppings. The mine at this time was being operated by Thomas Harris and Associates, who agreed to buy Charles Daniels interests in the property. Harris and Associates failed to carry out the recommendations, thereby forcing Mr. Daniels to take over the mine and, in order to save the mine he built temporary stoppings.

On September 29, 1935, the mine was again examined by Deputy Inspector Machin. The permanent stoppings not having been built, a recommendation was made "that permanent concrete stoppings be completed in thirty days," and Mr. Daniels agreed to have this done.

On December 2, 1933, at 1:00 A. M., I was notified that an explosion had occurred and that two men were in the mine. Arriving there shortly afterwards with E. H. Denny of the U. S. Bureau of Mines and Inspector Machin, we found that no explosion had taken place, but that the fumes from the area enclosed by the temporary stoppings had leaked through them and ascended the slope to a point above the pump.

The deceased, Martin Kranleides, the night mechanic, went down the slope about 10:00 P. M. on December 1, 1933, to oil the pump, and failing to return in a reasonable time, Mr. McCallum, the day mechanic, went down the slope and saw Kranleides lying down. McCallum ascended the slope, called night foreman Robert Boyle, and day foreman John Worman. The above named three then went down the slope, McCallum getting off at the end of the bell line. Boyle and Worman continued down to the pump and on reaching Kranleides they raised him up to put him in an empty car in order to bring him out to the surface, but before they got the body high enough, Boyle ordered Worman to get into the car, giving at the same time a signal to McCallum to have the car hoisted. Worman succeeded in getting into the car; Boyle failed to get in.

After several hours' effort we found the ventilation insufficient to remove the heavy black damp (CO_2) in order to get the bodies. Not having oxygen breathing apparatus, the Denver Fire Department was called. They arrived in a short time and with their gas

masks they entered the mine, accompanied by Charles Daniels, E. H. Denny and Hugo H. Machin and brought out the bodies.

On account of lack of funds the Coal Mine Inspection Department was unable to again inspect this mine at the expiration of the time allowed on September 29, 1933, to see if the recommendations made at that time had been complied with. It is my opinion that if this had been done, the mine would have been closed down until the permanent stoppings were built and thereby avoiding the accident.

The Littleton Valley Coal Company, through failure to comply with the coal mining laws upon recommendations made, is held responsible for the accident.

I wish to convey to the Denver Fire Department and all others assisting in the recovery of the bodies my sincere thanks.

JAMES DALRYMPLE,
State Inspector of Coal Mines.

FATAL ACCIDENTS WHICH OCCURRED IN THE COAL MINES OF COLORADO DURING THE YEAR 1934

January 4—MIKE FUNERO, Italian, company man, experience 25 years, age 48 years, widower, not known to have children, employed by the Vickers Coal Co. at the Kenneth mine, Las Animas County, was struck by a loaded trip of cars and from the effects of which he died shortly afterwards. Deceased was employed as a general utility man and on the morning of the accident he had completed the installation of a door on an entry and had sent his tools in an empty trip to an entry where he was to start putting in permanent stoppings. He followed the empty trip to the 17th entry and waited on the dip track while the rope rider pulled a loaded trip out of the entry parting. He was not familiar with the haulage in this section of the mine and as soon as the loaded trip was pulled, he started to proceed on the loaded track and was met by a loaded trip that was dropped on to the parting. There is sufficient clearance on the parting between loaded and empty tracks for him to have stepped aside and have been in the clear, but apparently he became confused and attempted to run back to the dip entry and was overtaken and knocked down with fatal results. The accident was a misadventure for which no one could be held responsible.

All main partings are to be electrically lighted and this may prevent such accidents in the future.

March 26—CHAS. LLOYD DEAN, American, driver, experience 13 years, age 30 years, married, five children, employed by the McNeil Coal Corp. at the Sterling mine, Weld County, came to his death by being struck by a mine car. A few minutes after the accident occurred, deceased was found by Chas. Adcock, driver, in an entry lying on his back under the second car of a trip. When

asked how it happened, he said, "the mule fell and I fell with him." The mule was unhitched and no derailment had taken place. The grade of the track here is about 5% in favor of the loads. Height of entry is 64 inches. Width of entry 8½ feet, and plenty of clearance. Deceased had complained thirty minutes before accident that he felt ill, and whether this was contributory to his fall is not known. The front end of the car had not run over him, as there is very little clearance between the bottom of the cars and roadbed. How he got under the second car without the front car running over him is a mystery, for had it done so, he would have been badly mangled. There was no eye witness to the accident and it is classed as unavoidable. To prevent similar accident the following recommendation is made: That all drivers be compelled to ride rear end of all trips, or that shafts and guns be used in place of tail chains.

April 1—JOHN M. ROGERS, American, pick miner, experience 15 years, age 51 years, married, two children, employed by the Gilson Asphaltum Co. at the Carbonero mine, Garfield County, came to his death through carbon monoxide poisoning. On April 1, between the hours of 9:00 A. M. and 10:00 A. M., deceased entered the mine to do some work. About noon on the same day, a fire was discovered in the fan house of the mine. The local officials, knowing Rogers to be in the mine, made an attempt to rescue him. The ventilating equipment was destroyed by the fire and it was impossible to enter the mine. An emergency fan was installed and a rescue party entered the mine on April 2, recovered the body and brought it outside. The fire in the mine was sealed off by concrete stoppings and a new fan installed. The fire in the mine is confined to the abandoned part of the workings. The active part is not affected. The accident is classed as a misadventure for which no one is held responsible. However, the following recommendation was made for future guidance: That a gate be placed at the entrance of the mine and locked to prevent any miners from going into the mine until it has been examined by a certified mine official and with their permission.

May 3—PAUL MARTINI, Italian, timberman, experience 25 years, age 46, married, five children (two minors), employed by the Leyden Lignite Co. at the Leyden No. 3 mine, Jefferson County, was injured on January 30, 1934, by a fall of top coal and died as a result of same on above date. Deceased and Nils Jorgensen were grading track when top coal fell. John Romans and partner, miners, heard the fall, looked around and saw Martini and Jorgensen partly covered with coal. There is from 1,200 to 1,500 feet of cover over the coal and in pulling of pillars there is continual roof movement accompanied by heavy bumps, three of which occurred while taking the statements of Romans and partner. They stated that there was no warning before the coal fell. It is my opinion that top coal was displaced by a sudden bump, no one being held responsible. Martini and Jorgensen were directed to grade this track and

remove two low cross bars. The accident might have been avoided had the timbering been done before track work.

Recommended: That wherever timbering is necessary in conjunction with track grading, that timbering be done first.

May 25—JOE ROSKOSKI, American, machine loader, experience 30 years, age 56 years, married, two children, employed by the Temple Fuel Co. at the Brodhead No. 9 mine, Las Animas County, was instantly killed by a fall of rock. Deceased and his son-in-law had loaded the last car of a previous cutting when a pot rock $7\frac{1}{2}$ by $6\frac{1}{2}$ feet and two feet thick fell from the right side of the place where he was working and struck him. The fall of rock dislodged two props, breaking four inches over face of solid coal. Width of room 14 feet 9 inches and length from main entry 25 feet. Height of coal 3 feet 8 inches and distances between props $3\frac{1}{2}$ feet, which made the place well timbered. On account of the height of coal, cross bars cannot be used, as it would make the place too low for cars to enter. The machinemen agreed that hereafter when they entered such places to cut, that they would stop at intervals to examine the roof for such pots and if such are discovered the place would be stopped until the management has time to shoot the pot down. The accident is classed as unavoidable.

May 29—THOS. TEMPLEMAN, American, machine miner, experience 39 years, age 52 years, married, three children, employed by The Colorado Fuel & Iron Co. at the Cameron (Robinson No. 4) mine, Huerfano County, was killed by a fall of rock. Deceased with his son and another man were working in the main south entry, which is driven 23 feet wide as a gob entry. A draw slate from eight to 18 inches thick generally comes down with the coal when it is shot. The three men had loaded 13 cars of coal from the cut when they discovered a bad pot rock on the left side of the place where three props had been set some time before. The man on the left side had taken out two props to let down the rock, the other two men were standing next to the car at the face close to the third prop when it gave way, releasing the pot rock, catching deceased between the car and rock and killing him. According to evidence, the place was well timbered. It is possible that if the car had not been at the face, the accident might have been avoided. It is classed as unforeseen and unavoidable.

July 14—MIKE PAVLICA, Slav, pick miner, experience 26 years, age 46 years, married, six children, employed by the Pikes Peak Fuel Co. at the Pikeview mine, El Paso County, was killed by a fall of top coal. The deceased and five other men were engaged in pulling chain pillar and room stumps in an entry. One hour and ten minutes before the accident occurred the mine foreman had instructed the six men to load up the loose coal, thus finishing the place. This had been done when the top coal, two feet in thickness, gave way suddenly and fell on deceased, who was leaving the place with his tools and had reached a point within four feet of safety.

From the evidence of the other five men the top coal fell very suddenly, giving practically no warning. At the time of inspecting the accident another fall of rock had fallen on top of coal, so that it could not be ascertained how well the place had been timbered before top coal fell. Deceased was considered a very careful worker by his employer and fellow workers. The accident is classed as unavoidable.

July 18—JOHN W. GRAVES, American, company man, experience 15 years, age 51, married, three children, employed by the Pikes Peak Fuel Co. at the Pikeview mine, El Paso County, was killed by a fall of top coal. The deceased was instructed by the mine foreman while making his examination on the morning of the accident to pull up a room switch that day after quitting time so that the track could be graded. This work apparently had been started when accident happened through a fall of top coal. The fifth dip district is pillar work and has considerable squeeze on it, both on haulageway and working places. Timbers are being broken and pushed out of place daily. The bottom is heaving all the time so that considerable supervision is necessary to keep the district in reasonably safe condition. The accident is considered unavoidable.

Recommendations: 1. That enough certified men be employed to assist the mine foreman so that pillar work and squeezed territories will be examined at least three times during the shift. 2. That sounding sticks with metal ends be used in testing roof. 3. That in all pillar work the maximum distance between props shall be six feet and distance between last props and face six feet. The last recommendation applies to pillar work.

July 28—WILLIAM KELLITT, English, machine miner, experience 36 years, age 58 years, married, five children, employed by the Rocky Mountain Fuel Co. at the Columbine mine, Weld County, was killed by a fall of rock. Accident occurred in a room pillar. All of the last machine cut coal had been loaded out and deceased and his partner were taking out the last remaining portions of coal from face and ribs by pick from the cutthrough. While loading the car, the place suddenly began to cave and both started to run out. The partner, being in front, was successful, but deceased slipped over a loose pile of coal just as a cross bar gave way, releasing top coal, which fell across his foot in such a manner he could not extricate himself. The partner immediately got help from other men working close by, but the place was working to such an extent that they could not get him out until he was covered up and he died from the shock and suffocation.

The mine foreman had visited the place an hour before the accident and found the place well timbered and no evidence of danger of caving. The accident was due to the inherent danger of pillar work and is classed as unforeseen and unavoidable.

September 5—FRANK MONTEZ, Mexican, machine miner, experience 23 years, age 48 years, married, six children, employed

by the Rocky Mountain Fuel Co. at the Columbine mine, Weld County, was killed by an electric shock. It was quitting time and deceased was on his way out of the mine when he came to the double parting at the bottom of the shaft. He walked between the tracks filled with loaded coal cars. Upon reaching the cross-over, the cars on both tracks came together. He undertook to pass between two loaded cars and came in contact with a trolley wire suspended directly over the cars carrying 250 volts D. C. The car bumpers are of steel and deceased had steel plates on his shoe soles and his clothing was wet from perspiration, making a complete contact. First aid was immediately applied and when the doctor arrived he was taken to the surface and a pulmotor was used for an hour but without result. The accident is classed as unavoidable. However, the following recommendation was made: That notice prohibiting employees from traveling on double parting be posted at north end of double parting and that all employees be compelled to travel manway to bottom of shaft. Management advised that they would have trench cut in roof and the wires placed in same.

September 11—TONY SPANDRE, Italian, pick miner, experience 20 years, age 57 years, married, two children, employed by George Brown at the Fire Glow mine, La Plata County, was killed by a fall of coal. Deceased was undermining coal on the right hand side of an upraise working place. He had mined the coal to a depth of five feet and about 20 feet long and had spragged it five feet apart. At the point where the accident occurred, a piece of coal about one foot thick by four feet long gave way from a slip, striking deceased, who lost his balance, falling down the raise, striking a prop, and the coal that fell crushed him against the prop. The place was well timbered and the coal which fell was likewise well spragged. The accident is classed as unavoidable. Recommended: That the method of mining this coal seam be changed. That on account of the steep pitch of the coal seam, the upraises be kept full of coal while the places are being advanced.

September 23—JOHN LEGAL, Austrian, pick miner, experience 22 years, age 47 years, married, two children, employed by the Leyden Lignite Co. at the Leyden No. 3 mine, Jefferson County, was injured on September 18, 1934, by a fall of face coal and died on above date. Deceased and three partners were pulling pillars, a connection had been made near the roof with another place. The coal is about six feet thick. Deceased was standing up and picking near the floor when the face coal gave way, striking him and causing such injuries as to cause his death. From the testimony of his partners, it seems that he might have saved himself had he stepped to the left instead of stepping straight back. He may have hoped that the prop knocked out by the coal would protect him against the coal fall. The accident is classed as unavoidable.

September 26—JOHN PARESS, Greek, pick miner, experience 22 years, age 51 years, married, three children, employed by the

Clayton Coal Co. at the Clayton mine, Weld County, came to his death by a fall of face coal. Deceased and his partner, Pete Jerfas, were working night shift pulling pillars between rooms. They had taken one slice 18 feet long off a pillar and were taking off a second slice. A thin stump was left which they were taking out by hand. It collapsed, killing Paress and injuring Jerfas seriously. The accident is classed as unavoidable. However, the recovery of such stumps is very dangerous and in order to minimize the hazard of the work, the following recommendation is made: That before stumps of coal left behind pillar work may be removed, the work must have the approval of the mine foreman.

October 6—E. F. PENNY, American, pick miner, experience 2 years, age 18 years, single, employed by the American Independent Coal Co. at the American Independent mine, Fremont County, was killed in a room off the main entry by a fall of top rock. The day before the accident deceased and his partner had taken down the top brushing to the coal face. On the morning of the 6th they fired a shot in the coal at the roadhead and were loading their second car when the fall occurred. This top rock or brushing is about three feet thick and in mining the coal they exposed about two feet of it, the width of the roadway, and under this they set two props about three and one-half feet apart, but an invisible slip on the right side of the road gave way and pulled clear across the roadhead parting to almost the center of the two props and a heavy fall of rock caught deceased in a stooping position, injuring him to such an extent that he died in a few minutes. The timbering of this room was very good. Mine foreman had visited the place about two hours prior to accident. The accident is classed as unavoidable due to the hazard of the work.

October 15—BENJAMIN MARTINEZ, American, machine runner, experience 19 years, age 37 years, married, six children, employed by the Aztec Coal Mining Co. at the Toltec mine, Huerfano County, came to his death by electrocution. Deceased and his helper had cut five places during the day and the helper had just set the jackpipe preparing to pull the machine to the upper rib to cut a cross cut. Deceased had hold of the chain and reached over to get hold of the friction lever to start the machine and was electrocuted as the machine was short circuited. When the machine was dismantled and tested it was found that the insulation had given way on one of the stator leads, causing a short. This machine had been overhauled about two weeks before the accident and had given no trouble since then. The accident is classed as unforeseen and therefore unavoidable.

October 18—WILLIAM S. CAMPBELL, Scotch, Superintendent and Mine Foreman, experience 30 years, age 47 years, married, three children, employed by the Gordon Coal Co. at the Gordon mine, Huerfano County, came to his death by being electrocuted. On the morning of the accident the tracklayer stated that

he smelled the odor of burning insulation and saw smoke coming from the back entry. He investigated and found that a fall of rock had taken place, tearing the power line from its fastenings and it lay on the damp ties and rock at the bottom. This caused a leakage in the line and burned the insulation. The tracklayer cut the power switch and lifted the power line and placed try ties under it for insulating purposes. Deceased arrived later and was informed by one of the drivers that there had been trouble with the power line and that smoke had been coming from the back entry. Mr. Campbell, the deceased, said that he would investigate and that was the last seen of him until his body was found the following night. There were no eye witnesses but from the conditions surrounding the point of accident there was a pool of water and to cross this, deceased evidently stepped on a wet tie lying in the water and he either slipped or the tie turned under his foot, causing him to fall, and his left hand came in contact with the power line, resulting in his being electrocuted. The power lines are well insulated but were evidently damp or wet from having been in the water. The accident is classed as a mishap for which no one can be held responsible.

November 5—JOE RAMIREZ, Mexican, machine miner, experience not given, age 41 years, single, employed by the National Fuel Co. at the Puritan mine, Weld County, was killed by a fall of coal. Deceased and seven partners were extracting room-neck and chain pillars at the most inby point of an entry. Here the top coal is left up to form a good roof. The first electric cut from the lift of the chain pillar was shot down and a few cars of coal loaded out when the assistant mine foreman visited the place and ordered as many as possible to load from the chain pillar. Deceased and five men began to load three cars from the chain pillar and while doing so a large piece of coal tumbled over and pinned deceased against the side of a car, causing such injuries that he died a few hours afterwards. The mine foreman had visited the place three hours prior to the accident. The place was well timbered and the accident was a mishap for which no one could be held responsible.

November 24—TONY SHAIN, Italian, pick miner, experience 20 years, age 39 years, married, three children, employed by the Victor-American Fuel Co. at the Delagua mine, Las Animas County, was injured by a fall of rock on September 19 and died on the above date. According to the evidence of his partner, deceased was mining coal on the inby end of a pillar and had mined about two feet when top coal and rock gave way from an invisible slip in the roof, dislodging two props and burying him under the fall. The mine foreman had visited the place two hours prior to the accident. It was well timbered and deceased was considered a good miner. The accident was unforeseen, therefore unavoidable.

November 26—DOMINICK SPAGNOLI, Italian, machine loader, experience 25 years, age 59 years, married, no children, em-

ployed by the W. A. Ream Coal Co. at the Spanish Peak mine, Huerfano County, was killed by a fall of rock. Deceased was working alone in a room and his body was found at quitting time under a fall of drawslate, about three feet from the face. The place was cleaned up and made ready for the cutting machine and in order for the machine to be moved to the face an emergency roadhead prop had to be removed four feet from the face. Deceased was chopping out the roadhead prop when the drawslate gave way from a visible slip. This visible slip was recognizable to both miner and mine officials. The fire boss had visited the place a few hours prior to the accident. The system of timbering should have been changed from single prop to cross bars. Had this been done, the accident might have been avoided.

Recommended and to be put into immediate effect: That where the roof is bad and the slip angles are traveling in different directions in the roof, that the places be cross barred instead of using single props only.

November 29—CHARLES HIGGINS, American, machine miner, experience 28 years, age 57 years, married, eight children, employed by David Allan, Crown mine, Boulder County, injured his finger on November 19 and died from an infection which set in five days later. He accidentally pinched his finger between a piece of rock and prop and had the doctor bandage it for him on the same day. A few days later blood poison set in and he was sent to the hospital. On the 28th it was found necessary to operate on him and he died the following day. The accident is classed as unavoidable.

December 10—JOHN J. DALY, American, switchman, experience 18 years, widower, no children, employed by the National Fuel Co. at the Monarch No. 2 mine, Boulder County, was caught between a fly wheel shaker screen engine and injured so seriously that he died a few hours later. He was caught while passing between the fly wheel of the shaker screen engine and the wall of the building. The clearance between the wheel and wall is fifteen inches. The shaker was in motion and he either stumbled or unthinkingly laid his hand on the belt, which threw him into the fly wheel. Had deceased waited until the engine stopped, the accident would have been avoided. The jury recommended that fly wheel be boxed or some other safety device be installed to prevent future accidents of this kind.

**SUMMARY OF THE COAL PRODUCTION OF COLORADO
FOR 1931 AND 1932**

	1931	1932
Number of mines operated reporting production--	318	345
Number of new and old mines opened: New mines 6, old mines reopened 55, total--	61	40
Number of mines closed 12, abandoned 6, total--	18	13
Tons of sub-bituminous coal produced--	2,686,132	2,502,873
Tons of semi-bituminous coal produced--	158,972	183,600
Tons of bituminous coal produced--	3,696,513	2,857,958
Tons of semi-anthracite coal produced--	37,685	46,704
Tons of anthracite coal produced--	24,761	25,390
TOTAL NUMBER OF TONS OF COAL PRODUCED	6,604,063	5,616,525
Decrease, 1931--	1,634,031	987,538
Tons of run-of-mine coal produced--	1,224,186	1,092,137
Tons of Lump coal produced--	1,854,729	1,567,320
Tons of Nut coal produced--	761,722	750,724
Tons of Pea coal produced--	241,243	203,646
Tons of Slack coal produced--	2,522,183	2,002,698
Percentage of Slack coal produced--	46.9%	43.6%
Tons of coal mined by hand--	2,334,304	1,790,969
Tons of coal mined by machine--	4,269,759	3,825,556
Number and kind of machines used: compressed air 58; electric 339; total--	397	61 + 243 = 404
Tons of coal mined for shipment; railroad 5,308,663; trucks and wagons 1,148,184; total--	6,456,847	4,166,907 + 1,312,134 = 5,479,041
Tons of coal shipped out of the state--	1,284,423	1,034,005
Tons of coal used at the mines for heat, power, waste, etc.--	147,216	137,484
Tons of coal made into coke--	439,189	186,753
Tons of coke made--	264,269	115,943
Number of days coke ovens were operated--	322.5	214
Number of men employed at coke ovens--	76	44
Number of coke ovens used--	266	144
Number of miners employed: pick miners, 2,565; machine miners, 3,394; total--	5,959	2,474 + 3,047 = 5,521
Number of men employed in and about mines (average)--	10,015	8,786
Average number of days worked (man-days)--	139.7	134.7
Daily production per miner, tons--	7.93	7.55
Annual production per miner, tons--	1,108.25	1,017.3
Number and type of safety lamps used: flame, 664; electric, 9,018; total--	9,682	338 + 7,835 = 8,223
Number of carbide lamps used--	2,754	2,619
Number of pounds of carbide used (*approximate)--	79,982	73,400
Number of pounds of black powder used--	750,855	725,027
Number of pounds of permissible powder used--	400,414	290,514
Number of pounds of dynamite powder used--	30,256	50,256
Number of men killed: Underground, 19; surface, 3; total--	22	28 + 1 = 29
Number of men injured--	1,238	1,083
Number of men killed per thousand 300 day workers--	4.75	7.35
Number of men killed per thousand employed--	2.2	3.30
Number of tons of coal produced for each life lost--	300,184	193,673
Number of men employed per fatal accident--	455.2	302.96
Number of men killed per million tons of coal produced--	3.33	5.18
Number of men injured per thousand employed--	123.6	124.40
Number of tons of coal produced for each non-fatal accident--	5,334	5,187
Number of men employed per non-fatal accident--	8.1	8.11
Number of men injured per million tons of coal produced--	187.5	192.82
Number of widows left--	14	22
Number of children left fatherless--	41	49

*A number of the mines did not report the carbide used as same was furnished by the employees.

**SUMMARY OF THE COAL PRODUCTION OF COLORADO
FOR 1933 AND 1934**

	1933	1934
Number of mines reporting production	375	352
Number of mines operated and inspected by inspectors	421	429
Number of new and old mines opened: New 24;		
old 36; total	60	
Number of mines closed: 29; abandoned, 1; total	30	
Tons of sub-bituminous coal produced	2,425,047	
Tons of semi-bituminous coal produced	154,002	
Tons of bituminous coal produced	2,643,871	
Tons of semi-anthracite coal produced	49,528	
Tons of anthracite coal produced	12,424	
TOTAL NUMBER OF TONS OF COAL PRODUCED	5,284,872	5,251,003
Decrease, 1933	331,653	33,569
Tons of run-of-mine coal produced	980,076	930,039
Tons of Lump coal produced	1,313,894	1,277,993
Tons of Nut coal produced	669,327	526,130
Tons of Pea coal produced	242,236	272,235
Tons of Slack coal produced	2,079,339	2,244,606
Percentage of Slack coal produced	48.5	42.7
Tons of coal mined by hand	1,932,619	1,913,960
Tons of coal mined by machine	3,352,253	3,337,043
Number and kind of machines used: Compressed air, 61; Electric, 302; total	363	63 + 365 = 428
Tons of coal mined for shipment: Railroad, 3,959,809; trucks and wagons, 1,193,703; total	5,153,512	3,970,735 + 1,142,746 = 5,113,481
Tons of coal shipped out of the state	1,037,062	600,847
Tons of coal used at mines for heat, power, waste, etc.	131,360	137,522
Tons of coal made into coke	302,814	855,458
Tons of coke made	174,882	208,910
Number of men employed at coke ovens	160	78
Number of days coke ovens were operated	258	317.5
Number of coke ovens used	40	48
Number of miners employed: Pick miners, 2,005; Machine miners, 2,999; total	5,004	1,815 + 3,037 = 4,872
Number of men employed in and about mines (average)	8,179	8,138
Average number of days worked (man-days)	139.5	142.9
Daily production per miner, tons	7.58	7.53
Annual production per miner, tons	1,005.6	1,077.8
Number and type of safety lamps used: Flame 354; Electric, 7,457; total	7,811	352 + 7,393 = 7,745
Number of carbide lamps used	2,711	2,576
Number of pounds of carbide used (*approximate)	101,813	69,924
Number of pounds of black powder used	777,265	678,455
Number of pounds of permissible powder used	273,907	273,446
Number of pounds of dynamite powder used	27,565	33,919
Number of pounds of Cardox used	37,472	-----
Number of men killed: Underground, 17; Surface, 3; total	20	20 + 1 = 21
Number of men injured	1,042	963
Number of men killed per thousand 300 day workers	4.73	5.44
Number of men killed per 1000 employed, actual days worked	2.20	2.58
Number of tons of coal produced per fatal accident	264,244	250,048
Number of men employed per fatal accident	409	387.5
Number of men killed per million tons coal produced	3.78	4.0
Number of men injured per 1000 employed	127.4	118.3
Number of tons of coal produced per non-fatal accident	5,072	5,453
Number of men employed per non-fatal accident	7.84	8.5
Number of men injured per million tons coal produced	197.17	183.4
Number of widows left	12	18
Number of children left fatherless	32	61

*A number of the mines did not report the carbide used as same was furnished by the employees.

Four mines reporting a production of 1,325 tons of coal came in too late to embody their production in the regular report.

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